

## PAPERS READ.

CATALOGUE OF THE DESCRIBED HYMENOPTERA  
OF AUSTRALIA.

BY WALTER W. FROGGATT.

In issuing this catalogue the compiler knows that it must be incomplete in many details, but hopes that, with all its defects, it may be of some practical use as a guide to those wanting to know what has been written, and where the information is to be found referring to our bees, ants and wasps. While most of the other large orders of insects have received a considerable amount of attention from writers on Australian Entomology, with the exception of the following writers, until quite recently, few others had given more than a passing glance at our Hymenoptera. Professor Westwood at a very early date described and nearly always added coloured figures of many of our finest wasps, and has done a great deal towards assisting students to work at this group. The late F. Smith, Esq., of the British Museum has described an immense number in the British Museum Catalogues and Proceedings of Scientific Societies; his clear and concise descriptions render it very easy to identify nearly all his species. While Henri de Saussure in his fine Monographs of the Vespidae and other groups has greatly advanced our knowledge of Australian Hymenoptera. The writings of Walker on the parasitic wasps, and Mayr on the ants must also be mentioned.

That the hymenopterous fauna of Australia is very extensive there is not the least doubt, for while possessing many genera peculiar to this country, most of the larger exotic ones are also represented. Yet there are several striking exceptions in genera with an otherwise world-wide range, as *Bombus* and *Osmia* among the bees, and *Cimbex* in the saw-flies. As might be expected in a country abounding in sandy, scrubby plains, the fossorial wasps are very numerous.

In concluding this preface, I must state that it is through the liberal assistance of Sir William Macleay, and the use of his library and collections that I am enabled to compile this catalogue. I am also greatly indebted to Mr. J. J. Fletcher of the Linnean Society, and Mr. F. A. A. Skuse of the Australian Museum, for the assistance I received from both these gentlemen in hunting up many obscure references and many useful hints in the course of this work.

Part I. contains the families *Tenthredinidae* to the end of *Thynnidae*; I have followed Kirby's classification.

### Family TENTHREDINIDÆ.

This family was first noted from Australia by Klug in the "Berlin Magazine" 1814, when he formed the genus *Pterygophorus*, and described our two commonest species. Nothing is recorded about the habits of these insects, but I am enabled to give some information about their life-history from having bred some recently. The larvæ are of a dirty green colour with a broad head, tapering towards the tip of the abdomen, the anal segment being produced into a long, slender tail which curls over the back; they feed singly during the day on leaves of Eucalypts, and when full grown bore into dead wood, stopping up the entrance with the bits of wood gnawed out of the chamber in which they undergo their metamorphosis without forming any cocoon.

In 1817, Dr. Leach in his "Zoological Miscellanies," Vol. III., formed the genus *Perga* containing our largest and most brilliant saw-flies, which evidently take the place of the foreign genus *Cimbex*, to which they are closely allied; and he described six species. Then Westwood in his "Arcana Entomologica," 1841, and later on in the Proceedings of the Zoological Society, 1880, added greatly to the list. Other writers have described single species; Kirby's "List of Hymenoptera," Vol. I., 1882, gives a complete list of described saw-flies up to date, and describes a number of new species in the British Museum. The larvæ of

several species are common about Sydney, and are easily recognised by their habit of forming social clusters during the day, and ejecting a sticky yellow matter from near their mouths when disturbed.

Newman formed the genus *Euryx* in the "Entomologist," 1841, of which *E. nitidus*, Kirby, a bright metallic green saw-fly is the most common species, and can be frequently taken in the gardens about Sydney. In Kirby's list four more genera of saw-flies were added, and in the last number of the Proceedings of the Linnean Society of N. S. Wales, I have added another genus.

SECTION I.—"Antennæ short, 6-jointed; joints 3-5, of equal length, not remarkably short."

Sub-Family CIMBICINÆ.

1. PERGA.

*Perga*, Leach, Zoological Miscellany, III. p. 115 (1817).

1 AFFINIS, Kirby, Brit. Mus. Cat. Hym. I. p. 19, pl. 1. figs. 13 and 14, ♂, ♀ (1882).

Tasmania and Victoria.

BELLA, Newman, Entomologist, I. p. 89 (1841); Westw. Pro. Zool. Soc. 1880, p. 373, ♀.

Adelaide, S.A.; Tasmania.

BICOLOR, Leach, Zool. Misc. III. p. 116, pl. 148, fig. 5 (1817); Westw. P.Z.S. 1880, p. 371, ♀.

N. S. Wales, South Australia.

BISECTA, Kirby, Brit. Mus. Cat. Hym. I. pl. II. fig. 4, ♀ (1882).  
N. W. Australia.

5 CAMERONII, Westw. P.Z.S. 1880, p. 367, pl. XXXVII. fig. 3, ♀.  
Australia.

CHRISTII, Westw. l.c. p. 366, pl. XXXVII. fig. 2, ♀.  
Swan River, W.A.

CHALYBEA, Froggatt, P.L.S.N.S.W. (2), V. p. 285 (1890).  
Nundle, N.S.W.; S. Australia.

- CASTANEA, Kirby, Brit. Mus. Cat. Hym. I. p. 20, pl. I. fig. 6,  
 ♀ (1882).  
 Sydney, N.S.W.
- CRESSONII, Westw. P.Z.S. 1880, p. 368, pl. xxxvii. fig. 1.  
 Swan River, W.A.
- 10 DALMANII, Westw. l.c. p. 369, pl. xxxvii. fig. 2, ♀.  
 Goulburn River, Vic.
- DORSALIS, Leach, Zool. Misc. III. p. 117, pl. cxlviii. fig. 1,  
 ♂ (1817); Westw. P.Z.S. p. 362 (1880); *scutellata*,  
 Westw. Griff. Anim. Kingd. Ins. pl. 76, fig. 2; and  
 pl. 106, fig. 3, II. pp. 402 and 792, ♀; *eucalypti*,  
 Bennett and Scott, P.Z.S. 1859, p. 209, pl. lxii.; Kirby,  
 Brit. Mus. Cat. Hym. I. p. 18, pl. I. figs. 11 and 12,  
 ♂, ♀ (1882).  
 N. S. Wales, Queensland, Victoria, and S. Australia.
- ESENBECKII, Westw. P.Z.S. 1880, p. 365, pl. xxxv. fig. 5, ♀.  
 Swan River, W.A.
- FERRUGINEA, Leach, Zool. Misc. III. p. 118, pl. 148, fig. 4  
 (1817); Westw. P.Z.S. 1880, p. 374; Kirby, Brit. Mus.  
 Cat. I. p. 24, ♀ (1882).  
 Sydney, N.S.W.
- FOERSTERI, Westw. P.Z.S. 1880, p. 368, pl. xxxvi. fig. 1, ♂, ♀.  
 S. Australia; Sydney, N.S.W.
- 15 GLABRA, Kirby, Brit. Mus. Cat. Hym. I. p. 23, pl. II. fig. 5, ♀  
 (1882).  
 Sydney, N.S.W.
- GUERINII, Westw. P.Z.S. 1880, p. 367, pl. xxxv. fig. 1, ♂.  
 Australia.
- GRAVENHORSTII, Westw. l.c. p. 366, pl. xxxv. fig. 7, ♀.  
 Australia.
- HARTIGII, Westw. l.c. p. 369.  
 Australia.
- KIRBII, Leach, Zool. Misc. III. p. 117 (1816); Westw. l.c.  
 p. 371, pl. xxxvii. fig. 4; Kirby, Brit. Mus. Cat. p. 21,  
 pl. II. fig. 2 (1882).  
 Swan River, W.A.

- 20 **KLUGII**, Westw. P.Z.S. 1880, p. 363, pl. xxxiv. figs. 1, 2.  
 Perth, Swan River, and Champion Bay, W.A.
- LATREILLII**, Leach, Zool. Misc. III. p. 116, pl. 148, fig. 2 (1817);  
 Westw. l.c. p. 372, pl. xxxvi. fig. 3; Kirby, Brit. Mus. Cat. p. 25, pl. II. fig. 8, ♂ (1882).  
 Sydney, N.S.W.; S. Australia.
- LEWISII**, Westw. Trans. Ent. Soc. I. p. 232 (1836); Arc. Ent. I. p. 23, pl. VII. fig. 1 (1841); P.Z.S. 1880, p. 374, ♀.  
 N. S. Wales, Tasmania, and S. Australia.
- MACLEAII**, Westw. P.Z.S. 1880, p. 372, pl. xxxv. fig. 2, ♂.  
 Australia.
- NEWMANI**, Westw. l.c. p. 370, ♂.  
 Australia.
- 25 **PELETIERII**, Westw. l.c. p. 370, pl. xxxv. fig. 6, ♂.  
 Australia.
- POLITA**, Leach, Zool. Misc. III. p. 115, pl. 148, fig. 3 (1817);  
 Westw. l.c. p. 363; Kirby, Brit. Mus. Cat. p. 21, pl. II. fig. 1, ♂, ♀ (1882).  
 Moreton Bay, Q.; Sydney, N.S.W.; Victoria.
- SCABRA**, Newm. Zool. IV. p. 1274 (1846); Westw. l.c. p. 376.  
 Australia.
- SMITHII**, Westw. l.c. p. 375, pl. xxxvi. fig. 6, ♀.  
 Australia.
- SCHIODEI**, Westw. l.c. p. 364, pl. xxxiv. figs. 3, 4, ♀.  
 Moreton Bay, Q.; Adelaide, S.A.; Swan River, W.A.
- 30 **SPINOLÆ**, Westw. P.Z.S. 1880, p. 371, pl. xxxvi. fig. 4, ♀.  
 Sydney, N.S.W.; Melbourne, Vic.
- UNIVITTATA**, Kirby, Brit. Mus. Cat. p. 25, pl. II. fig. 7, ♀ (1882).  
 Australia.
- VENTRALIS**, Guér. (*Pseudoperga ventralis*) Icon. R. Anim. Ins. p. 398 (1846); Westw. l.c. p. 376.  
 Tasmania.
- WALKERII**, Westw. l.c. p. 368, pl. xxxvi., fig. 5.  
 Sydney, N.S.W.

SECTION II.—“*Antennæ 6-jointed; joints 3-5 so short that the club appears to spring almost immediately from the antennal tubercle. Abdomen rarely pointed, generally obtusely truncated at the extremity; hind femora more or less swollen.*”

BELINDA, Kirby, Brit. Mus. Cat. p. 27, pl. II. fig. 3, ♀ (1882).  
S. Australia.

35 BRULLEI, Westw. P.Z.S. 1880, p. 371, pl. XXXIV. fig. 6, ♂.  
Moreton Bay, Q.; South Australia.

DAHLBOMII, Westw. l.c. p. 371, pl. XXXV. figs. 3, 4.  
Swan River, W.A.

DUBIA, Kirby, Brit. Mus. Cat. p. 27, pl. II. fig. 9, ♂ (1882).  
Swan River, W.A.

RITSEMEI, Westw. P.Z.S. 1880, p. 365, pl. XXXIV. fig. 7.  
S. Australia; Swan River, W.A.

VOLLENHOVII, Westw. l.c. p. 365, pl. XXXIV. fig. 5.  
Australia.

SECTION III.—“*Antennæ 7-jointed, with a gradually-formed club.*”

40 AMENAIDA, Kirby, Brit. Mus. Cat. p. 28, pl. II. fig. 10, ♂ (1882).  
Adelaide, S.A.

DENTATA, Kirby, l.c. p. 29, pl. II. fig. 13, ♀.  
Adelaide, S.A.

HALIDAI, Westw. P.Z.S. 1880, p. 377, pl. XXXVII. fig. 5, ♀.  
Victoria.

JUCUNDA, Kirby, Brit. Mus. Cat. Hym. p. 30, pl. II. fig. 14, ♀ (1882).  
Perth, W.A.

JURINEI, Westw. P.Z.S. 1880, p. 378, pl. XXXVII. fig. 6, ♂.  
Australia.

45 LEACHII, Westw. l.c. p. 377; Kirby, Brit. Mus. Cat. p. 30,  
pl. II. fig. 11, ♀ (1882).  
Melbourne, Vic.

MAYRII, Westw. l.c. p. 378, pl. XXXVII. fig. 6, ♀ (1880).

Swan River, W.A.

RUFOMACULATA, Kirby, Brit. Mus. Cat. p. 29, pl. II. fig. 12, ♀ (1882).

Adelaide, S.A.

#### 2. CEREALCES.

*Cerealces*, Kirby, Brit. Mus. List of Hymenoptera, I. p. 30.

SCUTELLATA, Kirby, Brit. Mus. Cat. p. 31, pl. II. fig. 15, ♂ (1882).

S. Australia.

#### Sub-Family HYLOTOMINÆ.

##### 3. TRICHLORHACHUS.

*Trichlorhachus*, Kirby, l.c. p. 39 (1882).

AUSTRALIS [HYLOTOMA (SCHIZOCERA)], Westw. Arc. Ent. I. p. 23, pl. VII. fig. 2 (1841).

West Australia.

50 SOBRINUS, Kirby, Brit. Mus. Cat. p. 39, pl. III. fig. 3, ♂ (1882).  
Australia.

HYALINUS, Kirby, l.c. p. 39, pl. III. fig. 4, ♂.

Swan River, W.A.

NITIDUS, Kirby, l.c. p. 39, pl. III. figs. 1, 2, ♂, ♀.

Swan River, W.A.

ABDOMINALIS, Kirby, l.c. p. 40, pl. III. fig. 5, ♂.

Swan River, W.A.

#### Sub-Family PTERYGOPHORINÆ.

##### 4. PTERYGOPHORUS.

*Pterygophorus*, Klug, Berl. Mag. VI. p. 279 (1814).

ANALIS, Costa, Ann. Mus. Nap. II. p. 66, ♀ (1864).

Goulburn River, Vic.; Adelaide, S.A.

55 BIFASCIATUS, Brullé, Hym. IV. p. 661, pl. XLVI. fig. 1 (1846).  
Tasmania.

CINCTUS, Klug, Berl. Mag. VI. p. 278, pl. VII. figs. 1, 2 (1814);  
Leach, Zool. Misc. III. p. 119, pl. CXLVIII. fig. 6, ♂, ♀ (1817).

Victoria, to N. Coast.

*CYANEUS*, Leach, Zool. Misc. III. p. 119, ♂, ♀ (1817).

Lower Plenty, Vic.

*CYGNUS*, Kirby, Brit. Mus. Cat. p. 81, pl. VII. fig. 10 (1882).

Swan River, W.A.

*INTERRUPTUS*, Klug, Berl. Mag. VI. p. 279, pl. VII. fig. 3 (1814);

Leach, Zool. Misc. III. p. 118, ♂, ♀ (1817).

Tasmania, to N. Coast, Australia.

60 *LEACHII*, Kirby, Brit. Mus. Cat. p. 82, pl. VI. fig. 9, ♂, ♀ (1882).

Port Bowen, Q.

#### 5. PHILOMASTIX.

*Philomastix*, Froggatt, P.L.S.N.S.W. (2) V. p. 487 (1890).

*GLABER*, Froggatt, l.c. p. 489.

Richmond River, N.S.W.

*NANCARROWI*, Froggatt, l.c. p. 488.

Cairns, N. Queensland.

#### Sub-Family LOPHYRIDINÆ.

#### 6. EURYS.

*Eurys*, Newman, Entomologist, p. 90 (1841).

*AERATUS*, Newman, Ent. p. 90, ♀ (1841).

Adelaide, S.A.

*LAETUS* (*DICTYNNA*), Westw. Arc. Ent. I. p. 24, pl. VII. fig. 4,  
♀ (1841).

Tasmania; Adelaide, S.A.

65 *NITIDUS*, Kirby, Brit. Mus. Cat. p. 94, pl. VII. fig. 4, ♀ (1882).  
Australia.

#### 7. EURYOPSIS.

*Euryopsis*, Kirby, Brit. Mus. Cat. p. 95 (1882).

*NITENS*, Kirby, l.c. p. 95, pl. VII. fig. 5.

Adelaide, S.A.

#### 8. POLYCLONUS.

*Polyclonus*, Kirby, Brit. Mus. Cat. p. 97 (1882).

*ATRATUS*, Kirby, l.c. p. 97, pl. VII. fig. 3, ♂.

Australia.

## Family SIRICIDÆ.

Only one species of this small family of Hymenoptera has been described from Australia; they are found in all parts of the world, but I do not think that they will turn out to be very numerous in this country.

### Sub-Family SIRICINÆ.

#### 9. SIREX.

*Sirex*, Linn. Faun. Suec. p. 396 (1761).

AUSTRALIS, Kirby, Brit. Mus. Cat. p. 383, pl. xv. fig. 12 (1882).

Australia.

## Family CYNIPIDÆ.

I can not find any species of this family described from Australia, but there are at least six species in the Macleay collection, several of which I have bred out of galls during the last summer. One forms three-pronged galls about the size of a large pea, on the twigs of *Acacia discolor* growing in the neighbourhood of Sydney, which are full grown about the end of October, but the galls are so aborted by a small black chalcid that not more than 1 in 50 at that time contain the original maker. Another species forms large oval galls on the young stems of *Acacia longifolia*, hatching out in the early part of December. On the twigs of several species of Eucalypts a third species forms three-pronged galls which are placed in rows on either side of the twig. Systematic collecting and breeding from galls will no doubt bring many more species under our notice.

## Family CHALCIDIDÆ.

Over 150 species of this extensive family have been described from this country, chiefly by Walker, Westwood, and Kirby, most of the larger foreign genera having their representatives here. As nothing has been done towards the classification of several of the sub-families containing the majority of the minute insects since Walker's time, the compiler has had to use his classification in the following list.

## Sub-family LEUCASPINÆ.

## 10. LEUCASPIS.

*Leucaspis*, Fabr. Syst. Piez. p. 168.DARLINGII, Westw. Thes. Entom. Oxon. p. 134, pl. xxv. fig. 4.  
Darling Downs, Q.; Sydney, N.S.W.70 AUSTRALIS, Walk. Notes on Chalcididæ, p. — (1872).  
South Australia.

## Sub-family CHALCIDINÆ.

## 11. EPITRANUS.

*Epitranus*, Walk. Ent. Mag. II. p. 26 (1834).TELEUTE, Walk. Ent. Mag. V. p. 471; *Smiera Teleute*, Walk.  
Hobart, Tasmania.

## 12. TRICHOXENIA.

*Trichoxenia*, Walk. Notes on Chalcididæ, III. p. 45 (1871).CINERARIA, Kirby, Jour. Linn. Soc. XX. p. 35, pl. I. figs. 4, 5  
(1886).

N. S. Wales; Australia.

## 13. CHALCIS.

*Chalcis*, Fabricius, Syst. Piez.

ATRATA, Kirby, l.c. XVII. p. 76 (1883).

Queensland.

NITATOR, Walk. Trans. Ent. Soc. p. 345 (1862).

N. Australia.

75 PHYA, Walk. Ent. Mag. V. p. 471.

Sydney, N.S.W.

UCALEGON, Walk. Appen. Brit. Mus. Cat. Chal. p. 84 (1846).  
Adelaide, S.A.

## 14. BRACHYMERIA, Holmgren.

SIDNICA, Holmgren, Eugen. Res. Hymen. p. 437.  
Sydney, N.S.W.

## 15. HALTICHELLA.

*Halticella*, Spinola, Ann. Mus. XVII. p. 148.

DEXIUS, Walk. Ent. Mag. V. p. 473 ; *Hockeria Dexius*, Walk.

King George's Sound, W.A.

ERACON, Walk. l.c. p. 473 ; *Hockeria Eracon*, Walk.

Hobart, Tasmania.

80 FABRICATOR, Walk. Trans. Ent. Soc. (3) I. p. 365 (1862-4).

Adelaide, S.A.

INDIGNATOR, Walk. l.c. p. 369.

Tasmania.

INTERNATA, Walk. l.c. p. 369.

Tasmania.

NYSSA, Walk. Ent. Mag. V. p. 473 ; *Hockeria Nyssa*, Walk.

Sydney, N.S.W.

PROXENUS, Walk. Mon. Chal. II. p. 8.

Hobart, Tasmania ; Sydney, N.S.W.

## 16. AGAMERION.

*Agamerion*, Haliday, Trans. Ent. Soc. III. p. 298.

85 GELO, Haliday, Trans. Ent. Soc. III. p. 298, ♂ ; Walk. Trans.

Ent. Soc. (3) I. p. 373 (1862) ; *Miscogaster gelo*, Walk.

Mon. Chal. II. p. 27.

Sydney, N.S.W. ; Adelaide, S.A.

## Sub-Family EURYTOMINÆ.

## 17. EURYTOMA.

*Eurytoma*, Illiger, Fauna Etrusca, II. p. 127.

ARETHEAS, Walk. Mon. Chal. II. p. 3.

King George's Sound, W.A.

PIDYTES, Walk. l.c. p. 2.

Hobart, Tasmania ; King George's Sound, W.A.

TELLIS, Walk. l.c. p. 2.

Sydney, N.S.W.

## 18. ISOSOMA.

*Isosoma*, Walk. Ent. Mag. I. p. 14.

OLBUS, Walk. Mon. Chal. II. p. 3; *Eurytoma olbus*, Walk.  
Sydney, N.S.W.

90 ORITIAS, Walk. l.c. p. 5.

King George's Sound, W.A.

RAVOLA, Walk. l.c. p. 4.

Hobart, Tasmania.

VOLUX, Walk. l.c. p. 3.

Hobart, Tasmania; King George's Sound, W.A.

## Sub-Family TORYMINÆ.

## 19. MEGASTIGMUS.

*Megastigmus*, Spinola, Ann. Mus. XVII. p. 148.

BORUS, Walk. Mon. Chal. II. p. 5.

Hobart, Tasmania.

DRANCES, Walk. l.c. p. 5.

Hobart, Tasmania.

95 IAMENUS, Walk. l.c. p. 6.

Hobart, Tasmania.

## 20. CALLIMOME.

*Callimome*, Spinola, Ann. Mus. XVII. p. 148 (1811).

DAONUS Walk. Ent. Mag. V. p. 474.

King George's Sound, W.A.

OSINIUS, Walk. Mon. Chal. II. p. 6.

King George's Sound, W.A.

VIBIDIA, Walk. l.c. p. 7.

Sydney, N.S.W.

## Sub-Family EUCHARINÆ.

## 21. EUCHARIS.

*Eucharis*, Latreille, Gen. Crust. et Ins. IV. p. 20 (1809).

DELICATULA, Walk. Trans. Ent. Soc. (3), I. p. 376 (1862).

Tasmania.

- 100 ERIBOTES, Walk. Mon. Chal. II. p. 14.  
 Sydney, N.S.W.; Hobart, Tasmania.
- FAUSTA, Walk. l.c. p. 10.  
 Hobart, Tasmania.
- IMPLEXA, Walk. Trans. Ent. Soc. (3), I. p. 377.  
 Tasmania.
- LARYMNA, Walk. Appen. Brit. Mus. Cat. p. 86 (1846).  
 Australia.
- PYTTALUS, Walk. l.c. p. 87.  
 Adelaide, S.A.
- 105 PICEICORNIS, Walk. Trans. Ent. Soc. (3), I. p. 376.  
 Sydney, N.S.W.
- RUFIVENTRIS, Walk. l.c. p. 378.  
 Adelaide, S.A.
- SMARAGDINA, Walk. l.c. p. 376.  
 Tasmania.
- THEOCLES, Walk. Mon. Chal. II. p. 11.  
 Sydney, N.S.W.
- VALGIUS, Walk. l.c. p. 11.  
 Sydney, N.S.W.
- 110 XENIADES, Walk. l.c. p. 15.  
 Sydney, N.S.W.
22. TRICORYNA.  
*Tricoryna*, Kirby, Jour. Linn. Soc. XX. p. 29 (1866).
- IELLO (*Eucharis*), Walk. Mon. Chal. II. p. 12 (1839);  
 Haliday, Entomologist, I. pl. p. fig. 3 (1842).  
 Hobart, Tasmania.
23. METAGEA.  
*Metagea*, Kirby, Jour. Linn. Soc. XX. p. 30 (1866).
- ZALATES (*Eucharis*), Walk. Mon. Chal. II. p. 13; Haliday,  
 Entomol. I. pl. p. fig. 4 (1842).  
 Australia.

## 24. PSILOGASTER.

*Psilogaster*, Blanchard, Hist. Anim. Art. III. p. 260 (1840).

PALLIPES, Brullé, Ins. Hymen. IV. p. 573, pl. XXXIX. figs. 1, 2,  
Tasmania.

## 25. RHIPIPALLUS.

*Rhipipallus*, Kirby, Jour. Linn. Soc. XX. p. 31 (1866).

VOLUSUS (*Eucharis*), Walk. Mon. Chal. II. p. 9 (1839);  
Haliday, Entomol. I. pl. p. fig. 1 (1842).

King George's Sound, W.A.

115 CAMERONI, Kirby, Jour. Linn. Soc. XX. p. 37, pl. 1. figs.  
2, 2a (1886).

Australia?

## 26. STILBULA.

*Stilbula*, Spinola, Ann. Mus. XVII. p. 150 (1811).

PEDUNCULARIS, Westw. Thes. Ent. Oxon. p. 155, pl. XXVIII.  
fig. 7 (1874).

## 27. SCHIZASPIDIA.

*Schizaspidea*, Westw. P.Z.S. 1835, p. 69.

RUDIS, Westw. Thes. Ent. Oxon. p. 152, pl. XXVIII. fig. 5 (1874).  
S. Australia.

## Sub-family PERILAMPINÆ.

## 28. PERILAMPUS.

*Perilampus*, Swederus, Act. Stockh. (1784).

SALEIUS, Walk. Mon. Chal. II. p. 16.

King George's Sound, W.A.

## 29. EUCHRYSSIA.

*Euchryssia*, Westw. Thes. Ent. Oxon. p. 139 (1874).

CLEPTIDEA, Westw. Thes. Ent. Oxon. p. 139, pl. XXVI. fig. 3.  
Adelaide, S.A.

120 GEMMEA, Westw. l.c. p. 139, pl. XXVI. fig. 4.

Adelaide, S.A.

PRASINA, Westw. l.c. p. 140.

W. Australia.

## 30. POLYCHROMA.

*Polychroma*, Westw. Thes. Ent. Oxon. p. 140 (1874).

CUPRESCENS, Westw. Thes. Ent. Oxon. p. 140 (1874).

Melbourne, Vic.

## 31. THAUMASURA.

*Thaumasura*, Westw. Trans. Ent. Soc. 1868.

TEREBRATOR, Westw. Trans. Ent. Soc. 1868, p. 36 ; Thes.

Ent. Oxon. p. 143, pl. xxvi. fig. 9.

Australia.

## 32. BELONEA.

*Belonea*, Westw. Thes. Ent. Oxon. (1874).

AUSTRALICA, Westw. Thes. Ent. Oxon. p. 146, pl. xxvii. fig. 7.

S. Australia.

125 ERYTHROPODA, Cameron, Proc. Soc. Manchester, XXVI.

p. 122.

S. Australia.

## 33. PANTHALIS.

*Panthalis*, Cameron, Proc. Soc. Manchester, 1888.

BLACKBURNI, Cameron, Proc. Soc. Manchester, XXVI. p. 121.

S. Australia.

## Sub-family PTEROMALINÆ.

## 34. GASTRANCISTRUS.

*Gastrancistrus*, Westw. Lond. and Edin. Phil. Mag. (3) I.

p. 144.

MENŒTES (*Miscogaster*), Walk. Mon. Chal. II. p. 20.

Sydney, N.S.W.

## 35. LAMPROTATUS.

*Lamprotatus*, Westw. Mag. Nat. Hist. VI. (1833).

BATO (*Miscogaster*), Walk. Mon. Chal. II. p. 22.

Hobart, Tasmania.

CIRON (*Miscogaster*), Walk. l.c. p. 16.

Hobart, Tasmania.

130 DAMIA (*Miscogaster*), Walk. l.c. p. 21.

Sydney, N.S.W.

HICATŒUS (*Miscogaster*), Walk. l.c. p. 19.

Hobart, Tasmania.

MYEON (*Miscogaster*), Walk. l.c. p. 19.

Sydney, N.S.W.

NELO (*Miscogaster*), Walk. l.c. p. 17.

Sydney, N.S.W.

NICON (*Miscogaster*), Walk. l.c. p. 17.

Sydney, N.S.W.

135 THERA (*Miscogaster*), Walk. l.c. p. 18.

Hobart, Tasmania.

### 36. SELADERMA.

*Seladerma*, Walk. Ent. Mag. II. p. 288 (1863).

ATHINIS (*Miscogaster*), Walk. Mon. Chal. II. p. 26.

Sydney, N.S.W.; King George's Sound, W.A.

CERNUS (*Miscogaster*), Walk. l.c. p. 22.

Hobart, Tasmania.

LETUS (*Miscogaster*), Walk. l.c. p. 26.

Hobart, Tasmania.

### 37. SEMIOTUS.

*Semiotus*, Walk. Ent. Mag. II. p. 290 (1863).

DICE (*Miscogaster*), Walk. Mon. Chal. II. p. 24.

King George's Sound, W.A.

140 MERULA (*Miscogaster*), Walk. l.c. p. 25.

Hobart, Tasmania.

THEOPE (*Miscogaster*), Walk. l.c. p. 25.

King George's Sound, W.A.

### 38. MICROMELUS.

*Micromelus*, Walk. Ent. Mag. I. p. 464 (1863).

SILANUS, Walk. Ann. Nat. Hist. XII. p. 46.

Hobart, Tasmania.

## 39. PTEROMALUS.

*Pteromalus*, Swederus, Act. Stockh. (1784).

BATON, Walk. Mon. Chal. II. p. 32.

Hobart, Tasmania.

BEBIUS, Walk. l.c. p. 31.

Sydney, N.S.W.

45 EUCTEMON, Walk. l.c. p. 31.

Sydney, N.S.W.

EUROPS, Walk. l.c. p. 30.

Sydney, N.S.W.

FABIA, Walk. l.c. p. 33.

King George's Sound, W.A.

GORGIAS, Walk. l.c. p. 34.

Sydney, N.S.W.

NIPHE, Walk. l.c. p. 20.

Hobart, Tasmania.

150 OCEIA, Walk. l.c. p. 30.

Hobart, Tasmania.

THESTOR, Walk. l.c. p. 29.

Hobart, Tasmania.

UNCA, Walk. l.c. p. 28.

Hobart, Tasmania.

## Sub-family EUPELMINÆ.

## 40. EUPELMUS.

*Eupelmus*, Dalman, Kongl. Vet. Acad. Handl. (1820).

DODONE (*Calosoter*), Walk. Mon. Chal. II. p. 35.

King George's Sound, W.A.

UROZONUS, Dalman, Kongl. Vet. Acad. Handl. II. p. 378 (2),

pl. viii, figs. 34-37 (1820.)

England ; Europe ; Sydney, N.S.W.

## 41. MYRMECOPSIS.

*Myrmecopsis*, Walk. Trans. Ent. Soc. 1865, p. 442.

155 NIGRICANS, Walk. Trans. Ent. Soc. (3). II. p. 442 (1865).

N. Australia.

## Sub-family ENCYRTINÆ.

## 42. ERICYDNUS.

*Ericydnus*, Haliday, Entomol. (1842).CHRYSCUS (*Pteromalus*), Walk. Mon. Chal. II. p. 34.

King George's Sound, W.A.

MEGALARUS (*Eulophus*), Walk. Ent. Mag. V. p. 477.

King George's Sound, W.A.

## 43. ENCYRTUS.

*Encyrtus*, Dalman, Kongl. Vet. Acad. Handl. (1820).

ARSANES, Walk. Mon. Chal. II. p. 36.

Hobart, Tasmania.

CHELES, Walk. l.c. p. 37.

Hobart, Tasmania.

160 LUCETIUS, Walk. l.c. p. 36.

Hobart, Tasmania ; King George's Sound, W.A.

PACORUS, Walk. l.c. p. 39.

Sydney, N.S.W.

SALACON, Walk. l.c. p. 37.

Hobart, Tasmania.

XUTHUS, Walk. l.c. p. 38.

King George's Sound, W.A.

ZAMEIS, Walk. l.c. p. 39.

King George's Sound, W.A.

165 ZEBINA, Walk. l.c. p. 36.

Hobart, Tasmania.

## Sub-family EULOPHINÆ.

## 44. ENTEDON.

*Entedon*, Dalman, Kongl. Vet. Acad. Handl. (1820).HESTIA (*Eulophus*), Walk. Mon. Chal. II. p. 40.

Hobart, Tasmania.

PRONAPIS, Walk. l.c. p. 46.

Sydney, N.S.W.

DIOCLES, Walk. l.c. p. 40.

Sydney, N.S.W.

## 45. EUDERUS.

*Euderus*, Haliday, Trans. Ent. Soc. III. p. 298.  
 MESTOR (*Eulophus*), Walk. Mon. Chal. II. p. 44.  
 King George's Sound, W.A.

## 46. OPHELIMUS.

*Ophelimus*, Haliday, Trans. Ent. Soc. III. p. 300.  
 170 SABELLA (*Eulophus*), Walk. Mon. Chal. II. p. 41; *Cirrospilus prymno*, Walk. l.c. p. 50.  
 Hobart, Tasmania.  
 URSIDIUS, Haliday, Trans. Ent. Soc. III.; *Eulopus ursidius*,  
 Walk. Mon. Chal. II. p. 44.  
 Hobart, Tasmania.

## 47. EUPLECTRUS.

*Euplectrus*, Westw. Lond. & Edin. Phil. Mag. III.  
 BICOLOR (*Pteromalus*), Swederus, Kongl. Vet. Acad. Handl.  
 1795, p. 204, fig. 2; *Elachestus albiventris*, Spinola,  
 Ann. Mus. VII. p. 151; Nees, Hym. Ich. aff. Mon. II.  
 146; *Euplectrus furnius*, Walk. Ann. Nat. Hist. XII.  
 p. 48; *Euplectrus maculiventris*, Westw. Lond. & Edin.  
 Phil. Mag. (3), I. 2, p. 128; *Eulophus bicolor*, Walk.  
 Mon. Chal. II. p. 173; *Spalangia? flavipes*, Boyer de  
 Fonscol. Ann. Sci. Nat. 1832, p. 299, fig. 1.  
 England; Sweden; St. Vincent Island; Hobart, Tas.

## 48. ELACHESTUS.

*Elachestus*, Spinola, Ann. Mus. XVII. p. 151 (1811).  
 IDOMENE, Walk. Appendix Brit. Mus. Cat. Chal. pt. 1, p. 98  
 (1846); *Eulophus artaeus*, Walk. Mon. Chal. II. p. 41.  
 Hobart, Tasmania.

## 49. EULOPHUS.

*Eulophus*, Geoffroy, Latr. Gen. Crust. et Ins. IV. (1810).  
 CICUTA, Walk. Mon. Chal. II. p. 43.  
 Sydney, N.S.W.

175 ITEA, Walk. l.c. p. 43.

Hobart, Tasmania.

TELESTAS, Walk. l.c. p. 42.

Sydney, N.S.W.

## 50. TETRASTICHUS.

Tetrastichus, Haliday, Westw. Lond. &amp; Edin. Phil. Mag.

(3) I. p. 128.

ARSES (*Cirrospilus*), Walk. Mon. Chal. II. p. 55.

Hobart, Tasmania ; King George's Sound, W.A.

AUTONÆ (*Eulophus*), Walk. l.c. p. 45.

Hobart, Tasmania.

BAUCIS (*Cirrospilus*), Walk. l.c. p. 53.

King George's Sound, W.A.

180 DYMAS (*Eulophus*), Walk. l.c. p. 45.

Hobart, Tasmania.

FANNIUS (*Cirrospilus*), Walk. l.c. p. 49.

Hobart, Tasmania.

GLYCON (*Cirrospilus*), Walk. l.c. p. 54.

Hobart, Tasmania.

HIPPASUS (*Cirrospilus*), Walk. l.c. p. 51.

Hobart, Tasmania.

LELAPS (*Cirrospilus*), Walk. l.c. p. 51.

King George's Sound, W.A.

185 NEIS (*Cirrospilus*), Walk. l.c. p. 49.

Hobart, Tasmania.

OTYS (*Cirrospilus*), Walk. l.c. p. 48.

Sydney, N.S.W.

PROTO (*Cirrospilus*), Walk. l.c. p. 47.

Hobart, Tasmania.

VALENS (*Cirrospilus*), Walk. l.c. p. 46.

Hobart, Tasmania.

XENARES (*Cirrospilus*), Walk. l.c. p. 54.

Hobart, Tasmania ; King George's Sound, W.A.

190 ZALEUCUS (*Cirrospilus*), Walk. l.c. p. 52.

Hobart, Tasmania.

## Sub-family ?

## 51. OPHELOSIA.

*Ophelosia*, Riley, "Insect Life," U.S. Dept. Agric. II.  
p. 248 (1890).

CRAWFORDI, Riley, Ins. Life, II. pts. 7, 8, p. 249, fig. 54.  
Adelaide, S.A.

## Family PROCTOTRUPIDÆ.

The only members of this family that I can find recorded from Australia are four species described by Westwood in his *Thesaurus Entomologicus*, Oxford, 1874, belonging to the sub-family *Bethyl-lides* (the peculiarities of which division he defines), and several species of those curious little insects which inhabit the centre of many figs, belonging to the sub-family *Blastophagineæ*. These are described in the *Transactions of the Entomological Society of London*, 1883, where much interesting information is given about the habits of this group. My own observation of the many galls found in the vicinity of Sydney leads me to believe that this country is very rich in these minute parasitic Hymenoptera.

## Sub-family BETHYLLINÆ.

## 52. EPYRIS.

*Epyris*, Westw. Trans. Ent. Soc. 1872.

PICEIVENTRIS, Westw. Thes. Ent. Oxon. p. 159, pl. xxix. fig. 10.  
Melbourne, Vic.

PLATYCEPHALUS, Westw. l.c. p. 159, pl. xxix. fig. 9.  
S. Australia.

## 53. EUPSENELLA.

*Eupsenella*, Westw. Thes. Ent. Oxon. 1872.

AGILIS, Westw. l.c. p. 168, pl. xxx. fig. 6.  
N. W. Australia.

## 54. GONIOZUS.

*Goniozus*, Thomson, Sver. Proctrup. in Overs. Kong. Vet. Akad. Forhandl. XVIII. p. 451.

195 ANTIPODUM, Westw. l.c. p. 169, pl. XXXI. fig. 1.  
Adelaide, S.A.

## Sub-family BLASTOPHAGINÆ.

## 55. PLEISTODONTES.

*Pleistodontes*, Saunders, Trans. Ent. Soc. Lond. 1883.

IMPERIALIS, Saund. Trans. Ent. Soc. 1883, p. 10.  
Sydney, N.S.W.

## 56. IDARNELLA.

*Idarnella*, Westw. Trans. Ent. Soc. Lond. 1883.

ATERRIMA, Saund. Trans. Ent. Soc. 1883, pt. 4, p. 389.  
Sydney, N.S.W.

## Family ICHNEUMONIDÆ.

Hardly anything has been done with this very large family of Hymenoptera, the members of which play such an important part in destroying immense numbers of lepidopterous and other larvae. Brullé's *Histoire Naturelle des Insectes Hyménoptères*, T. IV. 1846, is the principal work from which my list is taken, and I have therefore adhered to his classification, though Foerster's, given in his *Synoptical Tables* of this family (1868), is now being generally adopted. The difficulty of finding out the hosts of the larvae, and the great amount of trouble necessary to do satisfactory work at these interesting insects has, no doubt, deterred entomologists from working at this group.

## Sub-Family PIMPLINÆ.

## 57. EPHIALTES.

*Ephialtes*, Gravenhorst, *Ichneumologia Europaea* (1829).

ANNULATUS, Brullé, Hym. IV. p. 86.  
Tasmania.

## 58. PIMPLA.

*Pimpla*, Fabr. Syst. Piez. (1804).

INTERRUPTA, Brullé, l.c. p. 91.

Australia.

- 200 INTRICATORIA (*Cryptus*), Fabr. Syst. Ent.; Brullé, Hym. IV.  
p. 90; *excavata*, Le Guillou, Ann. Soc. Ent. France, X.  
p. 302.

Sydney, N.S.W.

TERMINALIS, Brullé, l.c. p. 96.

Australia.

TRILINEATA, Brullé, l.c. p. 90.

Australia.

## 59. WESTWOODIA.

*Westwoodia*, Brullé Hym. IV. p. 126.

- RUFICEPS, Brullé, Hym. IV. p. 127, pl. XLI. fig. 2.  
Tasmania.

## 60. RHYSSA.

*Rhyssa*, Gravenhorst, l.c.

- SEMIPUNCTATA, Kirby, Trans. Ent. Soc. 1883, p. 202.  
Australia and New Zealand.

## 61. ORTHOCENTRUS.

*Orthocentrus*, Gravenhorst, l.c.

- 205 BIFASCIATUS, Brullé, Hym. IV. p. 115.  
Tasmania.

## Sub-Family OPHIONINÆ.

## 62. OPHION.

*Ophion*, Fabr. Ent. Syst. Suppl. (1798).

- COARCTATUS, Brullé, Hym. IV. p. 147.  
Australia.

## 63. PANISCUS.

*Paniscus*, Gravenhorst, l.c.

- PRODUCTUS, Brullé, Hym. IV. p. 156.  
Tasmania.

64. MACRUS.

*Macrus*, Gravenhorst, l.c.

? RUFIVENTRIS, Brullé, Hym. IV. p. 164, pl. XLII, fig. 4.  
Tasmania.

65. ANOMALON.

*Anomalon*, Gravenhorst, l.c.

COARCTATUM, Brullé, Hym. IV. p. 176.  
Australia.

210 FLAVITARSI, Brullé, l.c. p. 171.  
Tasmania.

66. CRYPTUS.

*Cryptus*, Fabr. Syst. Piez. (1804).

AUSTRALIS, Tschek. Verh. z.-b. Gesell. Wien, XX. p. 116  
(1870).  
Australia.

FLAVO-CINCTUS, Brullé, Hym. IV. p. 198.  
Australia.

67. MESOSTENUS.

*Mesostenus*, Gravenhorst, l.c.

LUCTUOSUS, Brullé, Hym. IV. p. 226.  
Australia.

PHYSOSCELUS, Brullé, l.c. p. 240.  
Australia.

68. HEMIGASTER.

*Hemigaster*, Brullé, l.c. p. 266.

215 LUTEUS, Brullé, Hym. IV. p. 268.  
Australia.

Sub-family ICHNEUMONINÆ.

69. JOPPA.

*Joppa*, Fabr. Syst. Piez. (1804).

AUSTRALASIÆ, Brullé, Hym. IV. p. 281.  
Australia.

## 70. LIMNERIA.

*Limneria*, Holm. C. R. Hym. (1858-68).  
**SIDNICA**, Holm. Eugen. Res. I. Hym. p. 414.  
 Sydney, N.S.W.

## 71. ICHNEUMON.

*Ichneumon*, Linn. Syst. Nat. I. p. 930 (1767).  
**AUSTRALIS**, Brullé, Hym. IV. p. 309.  
 Tasmania.  
**ISCHIOLEUCUS**, Brullé, l.c. p. 310.  
 Tasmania.

## Family BRACONIDÆ.

This is also a family that has been much neglected, at anyrate in Australia, no doubt for the same reasons as the preceding one; and though I can find only eight species described from this country, most of which are in Brullé's *Hist. Nat. des Ins. Hymenoptères*, yet there are a vast number of these busy little insects that from their small size are often overlooked when the bigger Ichneumons are observed, though they do quite as much, if not more, service to man in destroying larvæ of destructive insects.

## 72. BRACON.

*Bracon*, Fabr. Syst. Piez. (1804).

220 **LIMBATUS**, Brullé, Hym. IV. p. 433.  
 Tasmania.

**PULCHELLUS**, Brullé, l.c. p. 432.  
 Australia.

## 73. ISCHIUS.

*Ischius*, Holm. Eugen. Res. (1858-68).  
**LEUCOGASTER**, Holm. Eugen. Res. Hym. p. 429.  
 Sydney, N.S.W.

## 74. MYOSOMA.

*Myosoma*, Brullé, l.c. p. 450.  
**MUTATOR** (*Bracon*), Fabr. P. Syst. Ins. ; Brullé, Hym. IV. p. 453.

## 75. SYNGASTER.

*Syngaster*, Brullé, l.c. p. 454.

ANNULICORNIS, Brullé, Hym. IV. p. 459.

Australia.

225 LEPIDUS, Brullé, l.c. p. 459.

Tasmania.

## 76. AGATHIS.

*Agathis*, Latr. Crus. et Ins. IV. p. 9 (1809).

BICOLOR, Brullé, Hym. IV. p. 483.

Australia.

DIMIDIATA, Brullé, l.c. p. 487.

Hobart, Tasmania.

## Family EVANIIDÆ.

The first genus of the family comprises those wasps parasitic in the egg-cases of the cockroach, and as we find several species in Australia that are common to Europe and other parts of the world, it is not unlikely that they have been introduced into this country. Westwood (Trans. Ent. Soc. 1850) has described a number of Australian species, and more recently in the *Thesaurus Entomologicus* (1874) has added to his list. Within the last few years Schletterer has written a splendid monograph of this family (Verhandlungen der k.k. Zoologisch-Botanischen Gesellschaft, Wien, 1885-90, continued in the Annalen des k.k. Naturhistorischen Hofmuseums, Wien, 1889-90), in which the genus *Fænus* of Fabricius is struck out, and the prior name *Gasterupition*, Latreille, substituted, and a great number of new species described.

## 77. EVANIA.

*Evania*, Fabr. Syst. Ins. (1775).

AUSTRALIS, Schl. Ann. Hofm. Wien, IV. p. 172 (1889);

Verh. z.-b. Gesell. Wien, XXXVI. p. 12 (1886).

Adelaide, S.A.

ANGULATA, Schl. Ann. Hofm. Wien, IV. p. 167.

Sydney, N.S.W.; Adelaide, S.A.

- 230 APPENDIGASTER, Fabr. Syst. Ins. p. 345; Schl. Verh. z.-b.  
Gesell. Wien, XXXVI. p. 10 (1886).  
Australia.
- EXIMIA, Schl. l.c. p. 20; Ann. Hofm. Wien, IV. p. 176.  
Sydney, N.S.W.
- GENALIS, Schl. Verh. z.-b. Gesell. Wien, XXXVI. p. 23;  
Schl. Ann. Hofm. Wien, IV. p. 162.  
Rockhampton, Q.
- HELLERI, Schl. Verh. z.-b. Gesell. Wien, XXXVI. p. 25;  
Schl. Ann. Hofm. Wien, IV. p. 165.  
S. Australia.
- HUMERATA, Schl. Ann. Hofm. Wien, IV. p. 173.  
Adelaide, S.A.
- 235 LÆVIGATA, Latr. Gen. Crus. et Ins. III. p. 251; Westw.  
Trans. Ent. Soc. III. p. 241 (1841-3).  
Australia.
- LONGIGENA, Schl. Ann. Hofm. Wien, IV. p. 163.  
Sydney, N.S.W.
- LUCIDA, Schl. l.c. p. 175.  
Australia.
- MUELLERI, Schl. l.c. p. 170.  
Australia and New Britain.
- PERFIDA, Westw. Trans. Ent. Soc. (n.s.), I. p. 216; Schl.  
Ann. Hofm. Wien, IV. p. 162.  
Tasmania.
- 240 PRINCIPES, West. Trans. Ent. Soc. III. p. 243 (1841-43);  
Ann. Mag. Nat. Hist. VII. p. 536 (1841); Schl. Verh.  
z.-b. Gesell. XXXVI. p. 32; Schl. Ann. Hofm. Wien,  
IV. p. 178.  
N. S. Wales, Woodlark I., and N. Guinea.
- SERICANS, Westw. Trans. Ent. Soc. (n.s.) I. p. 215; Schl.  
Ann. Hofm. IV. p. 171.  
King George's Sound, W.A.
- SCABRA, Schl. l.c. p. 168.  
Australia.

TASMANICA, Westw. Trans. Ent. Soc. III. p. 243 (1841-43);  
 Ann. Mag. Nat. Hist. VII. p. 536 (1841); Schl. Verh. z.-b. Gesell. Wien, XXXVI. p. 32 (1886); Schl. Ann. Hofm. Wien, IV. p. 165 (1889).

Tasmania.

78. GASTERUPTION.

*Gasteruption*, Latr. Préed. Caract. &c. p. 113 (1796);  
*Fænus*, Fabr. Ent. Syst. Suppl. p. 240 (1798); Schl. Ann. Hofm. Wien, IV. p. 373.

ANTENNALE, Schl. Ann. Hofm. Wien, IV. p. 414 (1890).

Australia.

245 AUSTRALE, Westw. Trans. Ent. Soc. III. p. 259 (1841-43);  
 P.Z.S. 1835, p. 51; Schl. Ann. Hofm. Wien, IV. p. 303 (1889).

Australia.

BRACHYURUM, Schl. Verh. z.-b. Gesell. XXXV. p. 293 (1885);  
 Ann. Hofm. Wien, IV. p. 438 (1890).

Tasmania.

CORIACEUM, Schl. Ann. Hofm. Wien, IV. p. 443 (1890);  
*Fænus gracilis*, Smith, Proc. Linn. Soc. III. p. 169.

Victoria.

DARWINII, Westw. Trans. Ent. Soc. III. p. 259, ♂; Schl. Ann. Hofm. IV. p. 305 (1890).

Australia.

DUBIUM, Schl. Verh. z.-b. Gesell. XXXV. p. 294 (1885);  
 Schl. Ann. Hofm. Wien, p. 440 (1890).

Swan River, W.A.

250 DEWITZI, Schl. Ann. Nat. Hofm. Wien, IV. p. 442 (1890).  
 Australia.

DOLICHOCEPHALUS, Schl. l.c. p. 445.

S. Australia.

CRASSICEPS, Schl. l.c. p. 462; *Fænus Hollandiae*, Guér. Icon.  
 Regn. Anim. p. 407.

S. Australia.

FALLAX, Schl. l.c. p. 461.

Queensland.

**FLAVITARSE**, Guér. Icon. Regn. Anim. p. 407, ♀ ; Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 295 (1885) ; Ann. Nat. Hofm. Wien, IV. p. 452 (1890) ; *Fænus flavitarsis*, Trans. Ent. Soc. (n.s.) I. p. 278.

Swan River, W.A.

255 **GENALE**, Schl. Ann. Nat. Hofm. Wien, IV. p. 436 (1890).

Rockhampton, Q.

**HOLLANDIÆ**, Guér. Icon. Regn. Anim. Ins. p. 407 (1828) ; Schl. Verh. z.-b. Gesell. XXXV. p. 308 (1885).

Australia.

**HUMERALE**, Schl. Ann. Hofm. Wien, IV. p. 459 (1890).

S. Australia.

**INERME**, Schl. l.c. p. 457.

Australia.

**LEUCOPUS**, Schl. l.c. p. 450.

Sydney, N.S.W.

260 **LONGICOLLE**, Schl. Verh. z.-b. Gesell. XXXV. p. 296 ; Schl.

Ann. Hofm. Wien, IV. p. 446 (1890).

Sydney, N.S.W.

**MALAICUM**, Schl. Verh. z.-b. Gesell. XXXV. p. 246 ; Schl.

Ann. Hofm. Wien, IV. p. 455.

Australia.

**MACRONYX**, Schl. Ann. Hofm. Wien, IV. p. 463.

Australia.

**NOVÆ-HOLLANDIÆ**, Schl. Verh. z.-b. Gesell. XXXV. p. 297 ;

Schl. Ann. Hofm. Wien, IV. p. 449.

Sydney, N.S.W.

**OCULARE**, Schl. Ann. Hofm. Wien, IV. p. 437.

Sydney, N.S.W.

265 **PATELLATUM**, Westw. Trans. Ent. Soc. (n.s.) III. p. 221 (1850) ;

Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 311 ; Schl.

Ann. Nat. Hofm. Wien, IV. p. 458.

Australia.

**PEREGRINUM**, Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 298 ;

Schl. Ann. Hofm. Wien, IV. p. 447.

Sydney, N.S.W.

**PEDUNCULATUM**, Schl. Ann. Hofm. Wien, IV. p. 466; *Fænus unguiculatus*, Westw. Ann. & Mag. Nat. Hist. VII. p. 53 (1841); Westw. Trans. Ent. Soc. III. p. 259 (1850); *Fænus unguicularis*, Sm. Trans. Ent. Soc. 1876, p. 480, pl. IV. fig. 8; *Fænus unguicularis*, Hutton, Cat. N.Z. Ins.

Australia and New Zealand.

**PLICATUM**, Schl. Ann. Hofm. Wien, IV. p. 466.

Sydney, N.S.W.

**RHAPHIDIOIDES**, Westw. Trans. Ent. Soc. (n.s) I. p. 220; Schl. Verh. z.-b. Gesell. XXXV. p. 299; Schl. Ann. Hofm. Wien, IV. p. 444.

Sydney, N.S.W.

270 **ROGENHOFERI**, Schl. Verh. z.-b. Gesell. XXXV. p. 299; Schl. Ann. Hofm. Wien, IV. p. 458 (1890).

Swan River, W.A.

**RUFUM**, Westw. Trans. Ent. Soc. (n.s.), I. p. 260 (1850); Westw. Ann. Mag. Nat. Hist. VII. p. 537 (1841); Schl. Ann. Hofm. Wien, IV. p. 464 (1890).

Australia.

**SIMILLIMUM**, Schl. l.c. p. 448.

S. W. Australia.

**SPINIGERUM**, Schl. l.c. p. 441.

Rockhampton, Q.

**STEINDACHNERII**, Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 300 (1885); Schl. Ann. Hofm. Wien, IV. p. 446.

Sydney, N.S.W.

275 **TENELLUM**, Schl. Ann. Hofm. Wien, IV. p. 437.

Queensland.

**TERMINALE**, Westw. Trans. Ent. Soc. III. p. 258 (1841-43); Westw. Ann. Mag. Nat. Hist. VII. p. 537; Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 381.

Australia and Tasmania.

**THORACICUM**, Guér. Icon. Regn. Anim. Ins. p. 437 (1828); Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 314.

Australia.

UNGUICULATUM, Westw. Ann. Mag. Nat. Hist. VII. p. 537, ♂ (1841); Westw. Trans. Ent. Soc. III. p. 257, ♂ (1841-43); Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 315.

Australia.

VALVULARE, Schl. Ann. Hofm. Wien, IV. p. 438.

Sydney, N.S.W.

280 VARIEGATUM, Schl. Verh. z.-b. Gesell. Wien, XXXV. p. 302;

Schl. Ann. Hofm. Wien, IV. p. 453.

Sydney, N.S.W.; Melbourne, Vic.

#### 79. MONOMACHUS.

*Monomachus*, Klug, MSS. Westw. l.c. p. 126.

ANTIPODALIS, Westw. Thes. Ent. Oxon. p. 126, pl. xxiv. fig. 1. (1874).

Melbourne, Vic.

#### 80. AULACUS.

*Aulacus*, Jarine, Nouv. Méth. Hym. et Dipt. I. p. 89 (1807).

APICALIS, Westw. Trans. Ent. Soc. III. p. 267, pl. xiv. fig. 7, (1841-43); Westw. Ann. Mag. Nat. Hist. VII. p. 538, ♂ (1841); Schl. Ann. Hofm. Wien, IV. p. 516; *variegatus*, Shuckard, Entomologist, I. p. 125, ♀.

Australia.

CINGULATUS, Westw. Trans. Ent. Soc. III. p. 267 (1841-43); Ann. Mag. Nat. Hist. VII. p. 538 (1841); *A. cingulatus*, Schl. Ann. Hofm. Wien, IV. p. 513.

Swan River, W.A.; N. S. Wales; and S. Australia.

CORDATUS, Schl. Ann. Hofm. Wien, IV. p. 514.

Rockhampton, Q.

285 FORMOSUS, West. Trans. Ent. Soc. 1868, p. 330; Westw. Thes. Ent. Oxon. p. 126, pl. xxiv. fig. 1 (1874); Schl. Ann. Hofm. Wien, IV. p. 512.

Melbourne, Vic.

FLAVOGUTTATUS, Westw. Trans. Ent. Soc. (n.s.) I. p. 223 (1850); Schl. l.c. p. 516.

Queensland and South Australia.

**LATERITIUS**, Westw. Trans. Ent. Soc. III. p. 267 (1841-43).  
Australia.

**MŒRENS**, Westw. Trans. Ent. Soc. 1868, p. 331; Westw.  
Thes. Ent. Oxon. p. 129, pl. xxiv. fig. 6 (1874); Schl  
l.c. p. 517.

Adelaide, S.A.

**RUBIDUS**, Schl. l.c. p. 510.  
Queensland.

290 **RUFITARSIS**, Westw. Trans. Ent. Soc. 1868, p. 330; Schl.  
l.c. p. 541.

Tasmania.

**RUFUS**, Westw. Trans. Ent. Soc. III. p. 266 (1841-43);  
Westw. Ann. Mag. Nat. Hist. VII. p. 538 (1841);  
Schl. l.c. p. 511.

#### 81. MEGALYRA.

*Megalyra*, Westw. Trans. Ent. Soc. III. (1841-43).

**FASCIIPENNIS**, Westw. l.c. p. 270, pl. xv. fig. 3, ♂ (1841-43);  
Westw. Griff. Anim. Kingd. Ins. p. 419, pl. 66, fig. 4, ♀.  
Australia.

#### 82. STEPHANUS.

*Stephanus*, Jurine, Nouv. Méth. Hym. et Dipt. I. p. 91  
(1809).

**DAMELLICUS**, Westw. Thes. Ent. Oxon. p. 126, pl. xxiv. fig. 1  
(1874).

Australia.

## Family CHRYSIDIDÆ.

We are indebted to Mr. F. Smith of the British Museum for descriptions of nearly all the following species, for until the appearance of his "Revision of the Hymenopterous genera *Cleptes*, &c." (Trans. Ent. Soc. London, 1874), no species of these handsome insects had been described from Australia. There is no doubt that this list will be very much enlarged when our entomologists take up this group, as the insects are found all over Australia, and are very plentiful in many places. Though most

of them are considered to be restricted in their range, *Stilbum amethystinum*, Fab., is found all over the warmer portions of the old world and Australia.

## 83. CHRYSIS.

*Chrysis*, Linn. Syst. Nat. ed. XII. I. p. 947 (1767).

AGILIS, Sm. Trans. Ent. Soc. 1874, p. 457.

Queensland.

295 BIPARTITUS, Sm. l.c. p. 462.

Australia.

FAUSTUS, Sm. l.c. p. 457.

Queensland.

FESTINUS, Sm. l.c. p. 462.

Perth, W.A.

GEMMATUS, Sm. l.c. p. 461.

Australia.

IMPERIOSUS, Sm. l.c. p. 460.

Moreton Bay, Q.

300 INTERCEPTOR, Sm. l.c. p. 457.

Hunter River, N.S.W.

INTRUDENS, Sm. l.c. p. 458.

Australia.

PARALLELUS, Sm. l.c. p. 458.

Australia.

REVERSUS, Sm. l.c. p. 457.

Tasmania.

VIRIDIFRONS, Sm. l.c. p. 457.

Tasmania.

305 RADOSZKOWSKYI, Gribodo, Ann. Mus. Genova, XIV. p. 335

(1879).

Australia.

## 84. PYRIA.

*Pyria*, St. Farg. Enc. Méth. X. (1825).

DREWSENI, Gribodo, l.c. XIV. p. 325 (1879).

Australia.

**PROTEUS**, Sm. Trans. Ent. Soc. 1874, p. 465.

North and West Australia, Swan River, Lizard Island.

**VIOLACEA**, Sm. l.c. p. 465.

Swan River, W.A.

#### 85. STILBUM.

*Stilbum*, Spinola, Ins. Ligur. II. (1808).

**AMETHYSTINUM** (*Chrysis*), Fabr. Syst. Ent. p. 359, ♂; Ent. Syst. II. p. 243; Syst. Piez. p. 176; *Chrysis calens*, Fabr. Syst. II. p. 239; Syst. Piez. p. 171; Rossi, Faun. Etrus. II. p. 74; *Stilbum splendidum*, Brullé, Hist. Nat. des Ins. Hym. (St. Farg.) IV. p. 15, ♂, ♀; Dahlb. Hym. Eur. II. p. 358; Gerst. Peters' Reise Mossamb. p. 519; Sm. Jour. Linn. Soc. IV. p. 144; *Stilbum calens*, Spin. Ins. Ligur. I. p. 9; Brullé, Nat. Hist. Hym. IV. p. 16; Dahlb. Hym. Eur. II. p. 360, ♂, ♀; Lucas, Explo. Sc. de l'Algér. III. p. 315, pl. xvii. fig. 13; Chevr. Chrys. du Bassin du Léman, 7; *Stilbum wesmæli*, Dahlb. Hym. Eur. II. p. 359, ♂; *Stilbum amethystinum*, Sm. Jour. Linn. Soc. IV. p. 177.

Australia, Africa, Europe, and Asia.

310 **SPLENDIDUM** (*Chrysis*), Fabr. Syst. Ent. p. 357, ♀; Ent. Syst. II. p. 238; Syst. Piez. p. 170; Sm. Trans. Ent. Soc. 1874, p. 469.

Sydney, Moreton Bay, Pt. Essington, and Swan River.

### Family FORMICIDÆ.

A considerable number of Australian ants have been described, and as many of our species have a very wide range, across to India and Africa, some have been redescribed very often as new species.

In Smith's British Museum Catalogue (1858) a number of new species were described, and those described previously, catalogued. Lowne, in the "Entomologist," Vol. II. (1865), described eighteen new species from the neighbourhood of Sydney; while Mayr, in several papers, more particularly "Myrmecologische Studien"

(Verh. k.k. z.-b. Gesell. Wien, XII. p. 649), "Neue Formiciden" (*Ibid.* XX. p. 939), and "Die Australischen Formiciden" (Journal des Museum Godeffroy, Heft XII. p. 56), has described the greater number of our known species, and, therefore, I have followed his arrangement of the genera.

## 86. FORMICA.

*Formica*, Linn. Syst. Nat. 1735.

AUROCINCTA, Sm. Brit. Mus. Cat. Hym. p. 39 (1858).

Adelaide, S.A.

CONSECTATOR, Sm. l.c. p. 38.

Australia.

CONSOBRINA, Erichs. Wieg. Arch. V. p. 258, No. 228 (1842).  
Tasmania.

DETECTA, Sm. Brit. Mus. Cat. Hym. p. 36.

Hunter River, N.S.W.

315 MACROCEPHALA, Erichs. Wieg. Arch. V. p. 229, No. 259  
(1842).  
Tasmania.

PILIVENTRIS, Sm. Brit. Mus. Cat. Hym. p. 39.

S. Australia.

PROCIDUA, Erichs. Wieg. Arch. V. p. 230, No. 259 (1842).  
Tasmania.

PURPUREA, Sm. Brit. Mus. Cat. Hym. p. 40.

Melbourne, Vic.

STRENUA, Haliday, Trans. Linn. Soc. XVII. p. 329.  
Australia.

320 SUFFUSA, Sm. Brit. Mus. Cat. Hym. p. 38.  
Australia.

VIRESSENS, Fabr. Syst. Ent. 392-9; Spec. Ins. I. 490, 73;  
Mant. Ins. I. 308, 16; Ent. Syst. II. 355, 23; Oliv. Enc.  
Méth. VI. 494, 20; Gmelin, Syst. Nat. Ins. II. 2800  
32; *Formica longinoda*, Latr. Hist. Nat. Fourm. 184;  
*Formica macra*, Guér. Voy. Coq. Zool. II. 202;  
*Lasius virescens*, Fabr. Syst. Piez. 417, 8.

Africa and Australia.

## 87. CAMPOONOTUS.

*Camponotus*, Mayr, Europ. Formic. p. 35 (1861).

**ÆNEOPILOSUS**, Mayr, Verh. z.-b. Gesell. Wien, XII. p. 665 (1862); Journ. Mus. Godef. XII. p. 63.

Cape York, Gayndah, Rockhampton, Peak Downs; Sydney.

**ALBOPILOSUS**, Mayr, Journ. Mus. Godef. XII. p. 61 (1876).  
Rockhampton, Peak Downs, &c.

**ARCUATUS**, Mayr, l.c. p. 63.  
Rockhampton, Q.

325 **CAPITO**, Mayr, l.c. p. 64.  
Peak Downs, Q.

**CINEREUS**, Mayr, l.c. p. 62.  
Peak Downs, Q.

**CLARIPES**, Mayr, l.c. p. 64.  
Peak Downs; Gayndah, Q.

**COMPRESSUS**, Fab. Mant. Ins. I. 307; Ent. Syst. II. 305, 2; Syst. Piez. 396, 2; Oliv. Enc. Méth. VI. p. 491; Latr. Hist. Nat. Fourn. III.; Hardw. Zool. Journ. IV. 114; St. Farg. Hym. I. 214, 17; Jerdon, Madras Journ. 185, 119; Ann. & Mag. Nat. Hist. (2) XIII. p. 103; Sm. Journ. & Proc. Linn. Soc. II. p. 53; *Formica indefessa*, Sykes, Trans. Ent. Soc. I. 104, p. 13, f. 6.

India to Australia.

**CRENULATUS**, Mayr, Journ. Mus. Godef. XII. p. 64 (1876).  
Rockhampton, Q.

330 **DORYCUS**, Sm. Journ. & Proc. Linn. Soc. V. Sup. p. 96 (1860).  
Cape York, N.A.; and N. Guinea.

**EPHIPPIUM**, Sm. Brit. Mus. Cat. Hym. p. 39 (1858); Rog. Verz. d. Form. p. 4 (1863).

Rockhampton, and Peak Downs, Q.

**EXTENSUS**, Mayr, Journ. Mus. Godef. XII. p. 65 (1876).  
Rockhampton, Q.

**INFLATUS**, Lubbock, *Nature*, XXIII. p. 258 (1881).

Adelaide, S.A.

**INTREPIDUS** (*Formica*), Kirby, *Trans. Ent. Soc.* p. 477 (1817);  
*Sm. Brit. Mus. Cat. Hym.* p. 37 (1858); *Rog. Verz. d. Form.* p. 4 (1863); *Formica agilis*, *Sm. Brit. Mus. Cat. Hym.* p. 37 (1858); *Camponotus magnus*, Mayr, *Verh. z.-b. Gesell.* XII. p. 673 (1862).

Cape York, Rockhampton, Sydney, Adelaide.

335 **NIGRICEPS** (*Formica*), *Sm. Brit. Mus. Cat. Hym.* p. 38 (1858);  
*Camponotus intrepidus*, Mayr, *Verh. z.-b. Gesell.* XII. (1862); *Camponotus dimidiatus*, *Rog. Verz. d. Form.* p. 4 (1863).

Rockhampton, &c., N.Q.; Sydney, N.S.W.

**NIGROÆNEUS**, Mayr, *Verh. z.-b. Gesell.* XII. p. 663 (1862);  
*Sm. Brit. Mus. Cat. Hym.* p. 40 (1858).

New Holland.

**NOVÆ-HOLLANDIÆ**, Mayr, *Verh. z.-b. Gesell.* XX. p. 939 (1870).

Cape York, Q.

**NIGRIVENTRIS** (*Formica*), Guér. *Voy. d. Coq. Zool.* II. p. 203,  
*Atlas pl. VIII. fig. 4, 4a.*

Sydney, N.S.W.

**PURPUREUS**, Mayr, *Journ. Mus. Godef.* XII. p. 62 (1876).

Rockhampton, Q.

340 **RUBGINOSUS**, Mayr, l.c. p. 66.

Peak Downs, Q.

**SCHENCKI**, Mayr, *Verh. z.-b. Gesell.* XII. p. 674 (1862).

Sydney, N.S.W.; Rockhampton, Q.

**SIMILIS**, Mayr, *Journ. Mus. Godef.* XII. p. 61 (1876).

Rockhampton, Q.

**SPLENDIDUS**, Mayr, l.c. p. 61.

Peak Downs, Q.

**SUBNITIDUS**, Mayr, l.c. p. 65.

Peak Downs, Q.

345 TESTACEIPES (*Formica*), Sm. Brit. Mus. Cat. Hym. p. 30 (1858);  
 Mayr, Verh. z.-b. Gesell. XII. 662 (1862); *Formica terebrans*, Lowne, Entomol. II. p. 278 (1865).

Sydney, N.S.W.

SS. COLOBOPSIS.

*Colobopsis*, Mayr, Europ. Form. (1861).

MUTILATA (*Formica*), Sm. Jour. Proc. Linn. Soc. III. p. 137 (1859); Mayr, Verh. z.-b. Gesell. XII. p. 691 (1862); *Ibid.* XIII. p. 403 (1863); Rog. Verz. d. Form. p. 10. Sydney, N.S.W.; Aru and N. Guinea.

89. POLYRHACHIS.

*Polyrhachis*, Shuckard, Hist. Ins. (1840).

AMMON (*Formica*), Fabr. Ent. Syst. II. p. 361; Mayr, Mus. Godef. XII. p. 72 (1876).

Rockhampton and Peak Downs, Q.

AMMONOEIDES, Rog. Berl. Ent. Zeit. VII. p. 157 (1863).

Sydney, N.S.W.

AUSTRALIS, Mayr, Verh. z.-b. Gesell. XX. p. 945 (1870).

Mackay, Q.

350 DAEMELI, Mayr, Journ. Mus. Godef. XII. p. 72 (1876).

Rockhampton, Q.

FEMORATUS, Sm. Brit. Mus. Cat. Hym. p. 73 (1858).

Melbourne, Vic.; Rockhampton, Q.

GUERINI, Rog. Berl. Ent. Zeit. VII. p. 157 (1863); var. *aurea*,

Mayr, l.c. p. 74; var. *vermiculosa*, l.c. p. 74; var. *pulescens*, l.c. p. 74.

Sydney, N.S.W.; Rockhampton, Q.

GRISEUS (*Formica*), Le Guillou, Ann. Soc. Ent. France, X. p. 314.

Australia.

HEXACANTHUS (*Formica*), Erichs. Wieg. Arch. VIII. p. 260, No. 231 (1842); *Polyrhachis fuscipes*, Mayr, Verh. z.-b. Gesell. XII. p. 679 (1862); *Polyrhachis jacksoniana*, Rog. Berl. Ent. Zeit. VII. p. 158 (1863).

Sydney, N.S.W.

355 HOOKERI, Lowne, Ent. II. p. 334.

Sydney, N.S.W.

HIRSUTA, Mayr, Journ. Mus. Godef. XII. p. 75 (1876).

Rockhampton, Q.

LÆVIOR, Rog. Verz. d. Form. p. 8, 232; *Polyrhachis lœvissimus*,

Sm. Journ. Proc. Linn. Soc. III. p. 141 (1859);

*Polyrhachis australis*, Mayr, Verh. z.-b. Gesell. XX.  
p. 945 (1870).

N. Queensland.

LATREILLEI, Guér. Voy. de Coq. Zool. II. p. 205; *Formica ammon*, Latr. Hist. Nat. (1802).

Australia.

MICANS, Mayr, Journ. Mus. Godef. XII. p. 76 (1876).

Rockhampton, Q.

360 ORNATA, Mayr, l.c. p. 73.

Rockhampton, Q.

PUNCTIVENTRIS, Mayr, l.c. p. 73.

Rockhampton, Q.

RASTELLATUS (*Formica*), Latr. Nat. Hist. Fourm. p. 130  
(1802); Mayr, Verh. z.-b. Gesell. XII. p. 688 (1862);

Mayr, Adn. in Mon. Form. Indo-Neerl. p. 41 (1867);

Mayr, Journ. Mus. Godef. XII. p. 70.

Australia; Rockhampton, Peak Downs, Q.

RELUCENS (*Formica*), Latr. Hist. Nat. Fourm. p. 113, pl. iv.

fig. 24; Sm. Journ. Proc. Linn. Soc. II. p. 59 (1857)

Mayr, Adn. in Mon. Form. Ind.-Neerl. p. 23 (1867).

Cape York, N.A.; Java, Borneo, &c.

SEMI-AURATA, Mayr, Journ. Mus. Godef. XII. p. 70 (1876).

Sydney, N.S.W.

365 SIDNICA, Mayr, Verh. z.-b. Gesell. Wien, XVI. p. 886

(1866); *quadricuspis*, Mayr, Neue Form. Verh. z.-b.

Gesell. XX. p. 946 (1870).

Rockhampton, Q.

TRAPEZOIDEA, Mayr, Journ. Mus. Godef. XII. p. 71 (1876).

Rockhampton, Q.

90. MYRMECOPSIS.

*Myrmecopsis*, Sm. Journ. Linn. Soc. VIII. (1865).

RESPICIENS (*Formica*), Sm. Journ. Linn. Soc. VIII. p. 68,  
pl. iv. fig. 3 (1865).

Rockhampton, Q. ; Sydney, N.S.W. ; N. Guinea, &c.

91. LEPTOMYRMEX.

*Leptomyrmex*, Mayr, Myrm. Stud. (1862).

ERYTHROCEPHALUS (*Formica*), Fabr. Ent. Syst. II. p. 351 ;  
*Atta erythrocephala*, Fabr. Syst. Piez. p. 423 ; *Leptomyrmex erythrocephalus*, Mayr, Verh. z.-b. Gesell. XII. p. 696 ; *Formica nigriventris*, Guér. Voy. Coq. Zool. II. p. 203.

Rockhampton, and Gayndah, Q. ; Sydney, N.S.W.

92. PRENOLEPIS.

*Prenolepis*, Mayr, Europ. Form. p. 52 (1861).

BRAUERI, Mayr, Reise Novara, Form. p. 49.  
Australia.

370 OBSCURA, Mayr, Verh. z.-b. Gesell. XII. p. 698 ; Reise  
Novara, Form. p. 52.  
Rockhampton, Q.

VIVIDULA (*Formica*), Nyl. Adn. Mon. Form. p. 900 ; Mayr,  
Form. Ind. Syn. p. 67 ; Verh. z.-b. Gesell. XX. p. 949 ;  
*Tapinoma vividula*, Sm. Brit. Mus. Cat. Hym. p. 56 ;  
Rog. Verz. d. Form. p. 13 ; *Formica perminuta*, *picea*  
and *terricola*, Buckley, Proc. Ent. Soc. Philad. pp. 162,  
163, 168 (1866).

Sydney, N.S.W.

93. CATAGLYPHIS.

*Cataglyphis*, Foerster, Ver. d. Nat. Rheinl. (1850).

XENEVIRENS (*Formica*), Lowne, Entomol. II. p. 276 ; Mayr,  
Journ. Mus. Godef. XII. p. 78 (1876).  
Sydney, N.S.W. ; Peak Downs, Q.

## 94. HYPOCLINEA.

*Hypoclinea*, Mayr, Form. Aust. p. 105 (1855).

GRACILIS (*Formica*), Lowne, Entomol. II. p. 280; Mayr, Verh. z.-b. Gesell. XX. p. 959; Mus. Godef. XII. p. 82 (1876).  
Sydney, N.S.W.; Rockhampton, Q.

RUFONIGRA (*Formica*), Lowne, Ent. II. p. 279; Mayr, Verh. z.-b. Gesell. XX. p. 959; Mus. Godef. XII. p. 82 (1876);  
*Acantholepis mamillatus*, Lowne, Ent. II. p. 333; *Hypoclinea mamillata*, Mayr, Verh. z.-b. Gesell. XX. p. 959.  
Sydney, N.S.W.; Rockhampton, Q.; Samoa, &c.

## 95. TAPINOMA.

*Tapinoma*, Foerster, Stud. Hym. p. 43 (1850).

375 ALBIPES (*Formica*), Sm. Journ. Linn. Soc. VI. p. 38 (1861);  
*Tapinoma nigrum*, Mayr, Verh. z.-b. Gesell. XII. p. 703;  
Reise Novara, Form. p. 62.

Australia.

MINUTUM, Mayr, Verh. z.-b. Gesell. XII. p. 703; Reise Novara, Form. p. 62.  
Sydney, N.S.W.

PUSILLUM, Mayr, Journ. Mus. Godef. XII. p. 83 (1876).  
Rockhampton, Q.; Sydney, N.S.W.

## 96. DIACAMMA.

*Diacamma*, Mayr, Myrm. Stud. p. 718 (1862)

AUSTRALE (*Formica*), Fabr. Syst. Ent. p. 359; Rog. Verz. Form. No. 487; Mayr, Mus. Godef. XII. p. 87 (1876);  
*Ponera australis*, Rog. Berl. Ent. Zeit. 1860, p. 303.  
Rockhampton, Q.

## Sub-Family PONERINÆ.

## 97. ODONTOMACHUS.

*Odontomachus*, Latreille, Hist. Crust. et Ins. XIII. p. 257.

ANGULATUS, Mayr, Myrm. Beitr. p. 17 (1866); Journ. Mus. Godef. XII. p. 86 (1876); *Odontomachus animosus*, Sm. Journ. Linn. Soc. V. p. 102 (1860).  
Cape York, N.A.

380 CORIARIUS, Mayr, Journ. Mus. Godef. XII. p. 85 (1876);  
var. *semicircularis*, l.c. p. 85; var. *magnus*, l.c. p. 85.

Rockhampton, Peak Downs, and Gayndah, Q.

HÆMATODES, Linné; Mayr, Journ. Mus. Godef. XII. p. 85  
(1876).

Australia, Tonga, &c.

RUFICEPS, Sm. Brit. Mus. Cat. Hym. p. 81 (1858).

Australia.

#### 98. PONERA.

*Ponera*, Latreille, Hist. Crust. et Ins. IV. p. 128.

AUSTRALIS (*Formica*), Fabr. Syst. Ent. p. 393, pl. xvi.; Ent.  
Syst. II. p. 359, No. 41; Syst. Piez. p. 410, No. 59;  
Oliv. Enc. Méth. VI. p. 497, No. 33; Latr. Hist. Nat.  
Fourm. p. 128.

Australia.

LUTEA, Mayr, Verh. z.-b. Gesell. XII. p. 721; Reise Novara,  
Form. p. 66; Journ. Mus. Godef. XII. p. 88 (1876).

Sydney, N.S.W.; Rockhampton and Gayndah, Q.

385 METALLICA, Sm. Brit. Mus. Cat. Hym. p. 94, pl. vi. figs. 17,  
18 (1858).

Adelaide, S.A.

OCULATA, Sm. Brit. Mus. Cat. Hym. p. 93 (1858).

Macintyre River, Australia.

RUGINODA, Sm. l.c. p. 93.

Australia.

#### 99. BOTHROPONERA.

*Bothroponera*, Mayr, Myrm. Stud. p. 717.

PILIVENTRIS (*Pachycondyla*), Sm. Brit. Mus. Cat. Hym. p. 107  
(1858); Mayr, Journ. Mus. Godef. XII. p. 87 (1876).

Peak Downs, Rockhampton, and Brisbane, Q.

#### 100. ANOCHETUS.

*Anochetus*, Mayr, Europ. Form. p. 53.

RECTANGULARIS, Mayr, Journ. Mus. Godef. XII. p. 86 (1876).  
Rockhampton, Q.

## 101. ECTATOMMA.

*Ectatomma*, Sm. Brit. Mus. Cat. (1858).

390 ACICULATUM, Sm. Brit. Mus. Cat. Hym. p. 104 (1858).

Hunter River, N.S.W.

ARANEOIDES (*Ponera*), Le Guillou, Ann. Soc. Ent. France X.  
p. 317 (1841); *Ectatomma rugosa*, Sm. Proc. Linn.  
Soc. III. p. 143 (1859); Mayr, Journ. Mus. Godef.  
XII. p. 92.

Cape York, N.A.; Aru I. and Ceram.

AURATUM, Rog. Berl. Ent. Zeit. 1861, p. 169.

Cape York, N.A.

CRISTATUM, Mayr, Journ. Mus. Godef. XII. p. 91 (1876).

Gayndah, Q.

CONVEXUM, Mayr, l.c. p. 92.

Rockhampton, Q.

395 IMPRESSUM, Mayr, l.c. p. 92.

Gayndah, Q.

METALLICUM, Sm. Brit. Mus. Cat. Hym. p. 94 (1858); Mayr,  
Verh. z.-b. Gesell. XVI. p. 891 (1866).

Australia.

NUDATUM, Mayr, Journ. Mus. Godef. XII. p. 91 (1876).

Gayndah, Q.

PUNCTATUM, Sm. Brit. Mus. Cat. Hym. p. 104 (1858).

Port Lincoln, S.A.

SCABRUM, Mayr, Journ. Mus. Godef. XII. p. 90 (1876).

Mackay, Rockhampton, &c., Q.

400 SOCIALE, Macleay, Trans. Ent. Soc. N.S.W. II. p. 369 (1873).

N.S. Wales.

## 102. LOBOPELTA.

*Lobopelta*, Mayr, Myrm. Stud. p. 733.

CONIGERA, Mayr, Journ. Mus. Godef. XII. p. 89 (1876).

Peak Downs and Rockhampton, Q.

EXCISA, Mayr, l.c. p. 89.

Rockhampton, Q.

FALLAX, Mayr, l.c. p. 88.

N. Queensland.

## 103. PACHYCONDYLA.

*Pachycondyla*, Sm. Brit. Mus. Cat. Hym. (1858).

ASTUTA, Sm. Brit. Mus. Cat. Hym. p. 107 (1858).

Australia.

405 BISPINOSA, Sm. l.c. p. 107.

Australia?

## 104, IRIDOMYRMEX.

*Iridomyrmex*, Mayr, Myrm. Stud. p. 702.

PURPUREUS (*Formica*), Sm. Brit. Mus. Cat. Hym. p. 40 (1858); Mayr, Verh. z.-b. Gesell. XII. p. 702.

Australia.

## 105. AMBLYOPONE.

*Amblyopone*, Erichs. Wieg. Archiv, 1842.

AUSTRALIS, Erichs. Wieg. Arch. VIII. p. 261, No. 232 (1842); Sm. Brit. Mus. Cat. Hym. p. 109, pl. vii. figs. 21-4 (1858).

Australia.

FERRUGINEA, Sm. Brit. Mus. Cat. Hym. p. 110 (1858).

Melbourne, Vic.

OBSCURA, Sm. l.c. p. 109.

Australia.

## Sub-Family MYRMECINÆ.

## 106. MYRMICA.

*Myrmica*, Ltr. Hist. Crus. Ins. XIII. p. 258.

410 ADELAIDÆ, Sm. Brit. Mus. Cat. Hym. p. 128 (1858).

Adelaide, S.A.

FORMOSA, Sm. Brit. Mus. Cat. Hym. p. 128 (1858).

Adelaide, S.A.

LONGICEPS, Sm. Brit. Mus. Cat. Hym. p. 128 (1858).

Melbourne, Vic.

MOLESTA, Say, Bost. Jour. Nat. Hist. I. p. 293, No. 6; Sm. l.c.

pp. 122, 130; *Myrmica domestica*, Shuck. Mag. Nat. Hist. p. 628 (1838); Curtis, Trans. Linn. Soc. XXI.

p. 217, No. 13; Nyl. Form. France et d'Algér. p. 98, No. 26; *Myrmica pharaonis*, Rog. Berl. Ent. Zeit.

(1862); Mayr, Verh. z.-b. Gesell. XII. p. 752; Linn. Syst. Nat. II. p. 963, No. 8 (?).

Australia (and most parts of the world).

## 107. MYRMECIA.

*Myrmecia*, Fabr. Syst. Piez. p. 423.

AFFINIS, Mayr, Verh. z.-b. Gesell. XII. p. 725.

Australia.

415 ANALIS, Mayr, l.c. p. 728.

Australia.

AURIVENTRIS, Mayr, Verh. z.-b. Gesell. Wien, XX. p. 968  
(1870); Journ. Mus. Godef. XII. p. 95 (1876).

N.S. Wales, Tasmania.

CRUDELIS, Sm. Brit. Mus. Cat. Hym. p. 147 (1858).

Adelaide, S.A.

ESURIENS, Fabr. Syst. Piez. p. 424; Mayr, Mus. Godef. XII.  
p. 94 (1876); *Myrmecia Tasmaniensis*, Sm. Brit. Mus.  
Cat. Hym. p. 147 (1858).

Tasmania.

FORFICATA, Fabr. Syst. Piez. p. 424, No. 3; Cab. Banks,  
Mus. Linn. Soc.; *Formica forficata*, Fabr. Ent. Syst. II.  
p. 363, No. 56; Oliv. Enc. Méth. VI. p. 501, No. 51;  
*Myrmecia simillima*, Sm. Brit. Mus. Cat. Hym. p. 144  
(1858).

Tasmania.

420 GULOSA (*Formica*), Fabr. Syst. Ent. p. 395; Spec. Ins. I.  
p. 494, No. 34; Ent. Syst. II. p. 363, No. 55; Fabr.  
Syst. Piez. p. 424, No. 2; Guér. Voy. d. Coq. II. 206;  
Mayr, Journ. Mus. Godef. XII. p. 95 (1876).

Sydney, N.S.W.; Brisbane and Rockhampton, Q.

MANDIBULARIS, Sm. l.c. p. 145.

Adelaide, S.A.

NIGRICEPS, Mayr, Verh. z.-b. Gesell. XII. p. 725; Mus.  
Godef. XII. p. 95 (1876).

Adelaide, Sydney, Rockhampton, &c.

NIGRISCAPA, Rog. Berl. Ent. Zeit. 1861, p. 33.

N.S. Wales.

NIGRIVENTRIS, Mayr, Verh. z.-b. Gesell. XII. p. 724; *Myr-*  
*mecia forceps*, Rog. Berl. Ent. Zeit. 1861, p. 34.

Australia.

734 CATALOGUE OF THE DESCRIBED HYMENOPTERA OF AUSTRALIA,

- 425 **NIGROCINCTA**, Sm. Brit. Mus. Cat. Hym. p. 147 (1858);  
Mayr, Journ. Mus. Godef. XII. p. 95 (1876).  
Sydney, N.S.W.; Peak Downs, Q.
- PICTA**, Mayr, l.c. p. 94; Sm. l.c. p. 146; *Myrmecia urens*,  
Lowne, Ent. II. p. 336 (1865); *Myrmecia pumilio*,  
Mayr, Verh. z.-b. Gesell. Wien, XVI. p. 896 (1866).  
Sydney, Adelaide and Queensland.
- PILIVENTRIS**, Sm. Brit. Mus. Cat. Hym. p. 146 (1858);  
Mayr, Journ. Mus. Godef. XII. p. 93 (1876).  
Sydney, N.S.W.; Queensland.
- PILOSULA**, Sm. Brit. Mus. Cat. Hym. p. 146 (1858); Mayr,  
Journ. Mus. Godef. XII. p. 93 (1876); *Formica forficata*, Latr. Hist. d. Fourm. p. 216.  
Tasmania, to Cape York, N.A.
- PYRIFORMIS**, Sm. l.c. p. 144, pl. x. figs. 1-6; Mayr, l.c. p. 96.  
Melbourne, Vic.; Hunter River, N.S.W.
- 430 **RUFINODIS**, Sm. l.c. p. 145.  
Adelaide, S.A.
- SANGUINEA**, Sm. Brit. Mus. Cat. Hym. p. 148 (1858); Mayr,  
Journ. Mus. Godef. XII. p. 94.  
N.S. Wales, Tasmania.
- SPADICEA**, Mayr, Verh. z.-b. Gesell. XII. p. 724.  
Adelaide, S.A.; Sydney, N.S.W.
- TARSATA**, Sm. l.c. p. 145; Mayr, Journ. Mus. Godef. XII.  
p. 96 (1876).  
Sydney, N.S.W.; Peak Downs, Q.
- TRICOLOR**, Mayr, Verh. z.-b. Gesell. XII. p. 724; Reise  
Novara, Form. p. 85; Journ. Mus. Godef. XII. p. 96  
(1876).  
Sydney, N.S.W.; Peak Downs, Q.
- 435 **VARIANS**, Mayr, Journ. Mus. Godef. l.c. p. 94.  
Rockhampton, Peak Downs, Q.
- VINDEX**, Sm. l.c. p. 144.  
W. Australia.

## 108. CREMASTOGASTER.

*Cremastogaster*, Lund, Ann. Sc. Nat. XXIII. (1831).

AUSTRALIS, Mayr, Journ. Mus. Godef. XII. p. 108 (1876).

Peak Downs, Q.

FUSCA, Mayr, i.e. p. 107.

Rockhampton, Q.

LÆVICEPS, Sm. Brit. Mus. Cat. Hym. p. 138 (1858); Mayr,  
Journ. Mus. Godef. XII. p. 107.

Cape York, Rockhampton, Sydney, and Melbourne.

440 PALLIPES, Mayr, Verh. z.-b. Gesell. XII. p. 768; Reise  
Novara, Form. p. 107; Journ. Mus. Godef. i.c. p. 108;  
*Cremastogaster piceus*, Lowne, Entomologist II. p. 335.  
Sydney, N.S.W.

RUFO-TESTACEA, Mayr, Journ. Mus. Godef. i.c. p. 109.

Sydney, N.S.W.

## 109. APHÆNOGASTER.

*Aphaenogaster*, Mayr, Verh. z.-b. Ver. Wien, III. (1853).

LONGICEPS (*Myrmica*), Sm. Brit. Mus. Cat. Hym. p. 128  
(1858); Mayr, Journ. Godef. XII. p. 98.

Gayndah, Peak Downs, and Rockhampton, Queensland;  
Sydney, N.S.W.

## 110. TETRAMORIUM.

*Tetramorium*, Mayr, Form. Aust. (1855).

GUINEENSE (*Formica*), Fabr. Syst. Entomol. ii. p. 357,  
No. 31; Mayr, Verh. z.-b. Gesell. XIII. p. 456; Journ.  
Mus. Godef. XII. p. 99 (1863).

Gayndah, Rockhampton, &c., Q.

## 111. MONOMORIUM.

*Monomorium*, Mayr, Form. Aust. (1855).

LAEVE, Mayr, Journ. Mus. Godef. XII. p. 101 (1876).

Rockhampton, Q.

445 PHARAONIS, Linné, Mayr, i.e. p. 100.

Rockhampton and Sydney.

RUBRICEPS, Mayr, i.e. p. 101.

Rockhampton and Cape York, Q.; Sydney, N.S.W.

## 112. ATTA.

*Atta*, St. Fargeau, Hym. I. (1836).

ANTIPODUM, Sm. Brit. Mus. Cat. Hym. p. 166 (1858).

Swan River, W.A.

SPINODA, Sm. l.c. p. 166.

Adelaide, S.A.

VIGILANS, Sm. l.c. p. 166.

Melbourne, Vie.

## 113. PHEIDOLE.

*Pheidole*, Westw. Ann. & Mag. Nat. Hist. VI. (1841).

450 BREVICORNIS, Mayr, Journ. Mus. Godef. XII. p. 106 (1876).

Rockhampton, Q.

IMPRESSICEPS, Mayr, l.c. p. 105.

Rockhampton, Q.

OPACIVENTRIS, Mayr, l.c. p. 105.

Rockhampton, Q.

PROXIMA, Mayr, l.c. p. 104.

Peak Downs, Q.

TASMANIENSIS, Mayr, Myrm. Beitr. p. 28 (1866); Mayr,  
Journ. Mus. Godef. XII. p. 106.

Tasmania.

455 VARIABILIS, Mayr, Journ. Mus. Godef. l.c. p. 103.

Rockhampton, Q.

## 114. PODOMYRMA.

*Podomyrma*, Sm. Journ. Linn. Soc. III. (1859).

FEMORATA, Sm. Journ. Linn. Soc. III. p. 145 (1859); Mayr,  
Journ. Mus. Godef. XII. p. 110.

Cape York, N.Q.

GRATIOSA (*Myrmecina*), Sm. Brit. Mus. Cat. Hym. p. 133  
(1858); Mayr, l.c. p. 100.

Sydney, N.S.W.; Cape York, N.Q.; Adelaide, S.A.

INERMIS, Mayr, Journ. Mus. Godef. XII. p. 111 (1876).

Peak Downs, Q.

MICANS, Mayr, l.c. p. 111.

Rockhampton, Q.

## 115. SIMA.

*Sima*, Rog. Berl. Ent. Zeit. 1863.

- 460 LÆVICEPS (*Pseudomyrma*), Sm. Journ. Proc. Linn. Soc. III.  
p. 145 (1859); Mayr, l.c. p. 111.  
Rockhampton and Port Darwin, Q.; N. Guinea, &c.

## 116. MERANOPLUS.

*Meranoplus*, Sm. Trans. Ent. Soc. 1853.

- DIMIDIATUS, Sm. Trans. Ent. Soc. (3) V. p. 527, pl. xxvi.  
f. 8 (1865-7).

Champion Bay, W.A.

- DIVERSUS, Sm. l.c. p. 527, pl. xxvi. f. 2.

Champion Bay, W.A.

- FENESTRATUS, Sm. l.c. p. 526, pl. xxvi. f. 6.

Champion Bay, W.A.

- HIRSUTUS, Mayr, Journ. Mus. Godef. XII p. 112 (1876).

Rockhampton, Port Darwin, Q.; Sydney, N.S.W.; Ade-  
laide, S.A.; Champion Bay, W.A.

- 465 PUBESCENS (*Cryptocerus*), Sm. Trans. Ent. Soc. 1853, p. 223,  
pl. xx. fig. 4; Trans. Ent. Soc. 1862, p. 413; Mayr,  
Journ. Mus. Godef. XII. p. 112; *Meranoplus fenestratus*,  
Sm. Trans. Ent. Soc. 1867, p. 526, pl. xxvi. fig. 6.

All parts of Australia.

## Family MUTILLIDÆ.

This family contains a number of insects with which the following family (*Thynnidae*) were at one time placed. They are plentiful in India, Africa, and are generally distributed over the warmer portions of the globe. All our Australian species belong to the genus *Mutilla*, Linn.; and several species are plentiful about Sydney. The females are wingless, and from their habits of running about on the sand or tree stems, and hiding under stones, are popularly known as "solitary ants," to which group of

the Hymenoptera they are closely allied, and coming between *Formicidae* and *Scolidiidae* seem to form a connecting link between the ants and the latter group of fossorial wasps. Little or nothing has been observed about the habits of our Australian species, but it is most likely that both *Mutilla* and *Thynnus* store their nests with other insects for the larvae to feed upon like the winged females of the *Sphegidae*, &c., as European species have been dug out of the sand in chambers containing the remains of other insects. The first species recorded from Australia were described from the Banksian Museum by Fabricius (Ent. Syst. 1775). In Westwood's "Arcana Entomologica" (1842) the previously described ones were redescribed, figured, and a number of new species added. In the British Museum Catalogue of Hymenoptera (1855), Smith gave a list of all the described species, and supplemented it with twenty-four new species; since his Catalogue he has added a number of new species chiefly from Western Australia in his "Descriptions of New Species of Hymenoptera in the British Museum" (1879). In 1883 Kohl described two more in the Verh. Gesell. z.-b. Wien, XXXII.

#### 117. MUTILLA.

*Mutilla*, Linn. Syst. Nat. ed. x. (1758).

ABDOMINALIS, Westw. Arc. Ent. II. p. 19, pl. LIII. fig. 1, ♂.  
N.S. Wales.

AFFINIS, Westw. l.c. p. 18, pl. LIV. fig. 2, ♀.  
Australia.

ACICULATA, Kohl, Verh. z.-b. Gesell. Wien, XXXII. p. 477,  
pl. XXIII. figs. 4 and 19 (1883).  
Australia.

ÆRUGINOSA, Sm. New Sp. Hym. Brit. Mus. p. 207, ♂ (1879).  
Moreton Bay, Q.

470 APICALIS, Sm. Brit. Mus. Cat. Hym. p. 23, ♂ (1855).  
N.S. Wales.

ALBOLINEATA, Sm. New Sp. Hym. Brit. Mus. p. 205, ♀ (1879).  
Champion Bay, W.A.

**AURATA**, Fabr. Ent. Syst. II. p. 368, No. 8, ♀; Syst. Piez. p. 430, No. 9; Oliv. Enc. Méth. VIII. p. 56, No. 10; Westw. Arc. Ent. II. p. 18.

Australia.

**AURICEPS**, Sm. New Sp. Hym. Brit. Mus. p. 201, ♀ (1879).  
Australia.

**AUSTRALASIAE**, Fabr. Syst. Piez. 433, 25, ♀; Oliv. Enc. Méth. VIII. 62, 41; Westw. Arc. Ent. II. p. 18.  
Australia.

475 **AUROPILOSA**, Sm. New Sp. Hym. Brit. Mus. p. 203, ♀ (1879).  
Champion Bay, W.A.

**BICOLORATA**, Sm. l.c. p. 207, ♀.  
Victoria.

**BIPARTITA**, Sm. l.c. p. 205, ♀.  
Champion Bay, W.A.

**CARBONARIA**, Sm. Brit. Mus. Cat. Hym. p. 30, ♂ (1855).  
Tasmania.

**CONCINNA**, Westw. Arc. Ent. II. p. 19, pl. LIII. fig. 3, ♀.  
Tasmania.

480 **CORDATA**, Sm. Brit. Mus. Cat. Hym. p. 28, ♀ (1855).  
Sydney, N.S.W.; Adelaide, S.A.

**DISTINGUENDA**, Sm. l.c. p. 25, ♀.  
West Australia.

**DEPRESSA**, Sm. New Sp. Hym. Brit. Mus. p. 203, ♀ (1879).  
Champion Bay, W.A.

**DORSIGERA**, Westw. Arc. Ent. II. p. 18, pl. LIII. fig. 4, ♀.  
Tasmania.

**ELEGANS**, Westw. l.c. p. 19, pl. LIII. fig. 2, ♂.  
Tasmania.

485 **FORMICARIA**, Fabr. Ent. Syst. II. 368, 6; Syst. Piez. ♀; Oliv. Enc. Méth. VIII. 56, 9; Westw. l.c. p. 17, pl. LIII. fig. 6.  
Australia.

**FRAGILIS**, Sm. New Sp. Hym. Brit. Mus. p. 203, ♂ (1879).  
Champion Bay, W.A.

- HOSPES, Sm. l.c. p. 202, ♀.  
 Champion Bay, W.A.
- IGNITA, Sm. Brit. Mus. Cat. Hym. p. 24, ♀ (1855).  
 Australia.
- INSTABILIS, Sm. l.c. p. 27, ♀.  
 King George's Sound, W.A.
- 490 JUCUNDA, Sm. New Sp. Hym. Brit. Mus. p. 203, ♀ (1879).  
 Adelaide, S.A.
- LACINIA, Sm. Brit. Mus. Cat. Hym. p. 25, ♂ (1855).  
 N.W. Coast, Australia.
- LATERALIS, Westw. Arc. Ent. II. p. 18, pl. LIV. fig. 3, ♀.  
 Tasmania.
- LUTARIA, Sm. Brit. Mus. Cat. Hym. p. 27, ♀ (1855).  
 Swan River, W.A.
- MACULATA, Sm. l.c. p. 28, ♀.  
 Adelaide, S.A.
- 495 METALLICA, Sm. l.c. p. 28, ♀.  
 Adelaide, S.A.
- MODESTA, Sm. l.c. p. 29, ♀.  
 Adelaide, S.A.
- MOROSA, Westw. Arc. Ent. II. p. 19, pl. LIV. fig. 1, ♂.  
 Swan River, W.A.
- NEPHELOPTERA, Kohl, Verh. z.-b. Gesell. Wien, XXXII.  
 p. 485 (1883).  
 N. Australia.
- NIGROÆNEA, Sm. Brit. Mus. Cat. Hym. p. 24, ♀ (1855).  
 Australia.
- 500 NITIDA, Sm. New Sp. Hym. Brit. Mus. p. 205, ♀ (1879).  
 Champion Bay, W.A.
- NOTABILIS, Sm. l.c. p. 204, ♀.  
 Tasmania.
- OLIVIERI (*Myrmecodes*), St. Farg. Hym. III. p. 588, ♀ (1845);  
*Myzine aptera*, Oliv. Enc. Méth. VIII. p. 137.  
 Australia.

PACIFICATRIX, Sm. New Sp. Hym. Brit. Mus. p. 204, ♀ (1879).

Champion Bay, W.A

PALLIDICORNIS, Sm. l.c. p. 202, ♀.

N. S. Wales

505 PEDESTRES (*Myrmecodes*), Latr. Crus. et Ins. IV. p. 118 ; St.

Farg. Hym. III. p. 587, ♀ ; *Tiphia pedestres*, Fabr. Syst.  
Piez. p. 235, ♀.

Australia.

PERPLEXA, Sm. Brit. Mus. Cat. Hym. p. 26, ♀ (1855).

N.W. Coast, Australia.

PULCHELLA, Sm. l.c. p. 29, ♀.

Moreton Bay, Q. ; Adelaide, S.A.

QUADRATA, Sm. l.c. p. 29, ♀.

Adelaide, S.A.

QUADRICEPS, Sm. New Sp. Hym. Brit. Mus. p. 206, ♀ (1879).

Adelaide, S.A.

510 ROBUSTA, Sm. Brit. Mus. Cat. Hym. p. 24, ♂ (1855).

Australia.

RUBELLA, Sm. l.c. p. 26, ♀.

N.W. Coast, Australia.

RUFICORNIS, Fabr. Ent. Syst. II. p. 369 ; Syst. Piez. p. 431 ;

Oliv. Enc. Méth. VIII. p. 59 ; Westw. Arc. Ent. II.  
p. 18.

Australia.

RUGICOLLIS, Westw. l.c. p. 17, pl. LIII. fig. 5, ♀.

Hunter River, N.S.W.

SCABROSA, Sm. New Sp. Hym. Brit. Mus. p. 202, ♀ (1879).

Swan River, W.A.

515 SCRUTATA, Sm. l.c. p. 206, ♀.

Melbourne, Vic.

SPLENDIDA, Sm. l.c. p. 207, ♂.

N. Guinea, N. Australia ?

STRIGOSA, Sm. Brit. Mus. Cat. Hym. p. 27, ♀ (1855).

Swan River, W.A.

VENUSTA, Sm. l.c. p. 26, ♀.

Perth, W.A.

VIRIDATIS, Sm. l.c. p. 25, ♂.

Australia.

520 VIVIDA, Sm. New Sp. Hym. Brit. Mus. p. 207, ♂ (1879).

Champion Bay, W.A.

### Family THYNNIDÆ.

This group is a very characteristic one among our Australian Hymenoptera, and the genus *Thynnus*, which is peculiar to America and Australasia, is remarkable for the number and beauty of its species. In the early summer, in a favourable locality, scores of the males of *T. variabilis*, Kirby, *T. leachiellus*, Westw., and *T. shuckardi*, Guér., three of our commonest species, may be seen hovering over the flowers, and seeking the small wingless females. Many of the early entomologists described the sexes as different species, and in this family, and also in the *Mutillidæ*, it is very difficult to sex any of the species unless they are captured together. As many of the following species have been described from specimens of the one sex, there is, no doubt, a good deal of confusion in this family, and a revision of the *Thynnidæ* would be very useful work. Fabricius formed the genus *Thynnus* in his "Syst. Entomologica" (1775). M. Guérin in his Memoir of the *Thynnidæ* in the "Voyage de la Coquille" (1830), and afterwards in the "Magasin de Zoologie" (1842), described a large number of new species, and divided them up into a great number of new genera. In 1842, Dr. Klug wrote a monograph of this family in the "Transactions of the Berlin Academy," when he rejected most of Guérin's genera, and, uniting them all under *Thynnus*, described forty new species. Westwood, in his "Arcana Entomologica" (1845), Vol. II., gives a lot of interesting information about this family, and describes a number of new species which he figures. In the "British Museum Catalogue of Hymenoptera" (1859), Smith catalogued all the

previously described species, and described a great many new ones. In his "New Species of Hymenoptera in the British Museum" (1879), the same writer added a great many more new species, most of them from Western Australia.

### 118. THYNNUS.

*Thynnus*, Fab. Syst. Ent. p. 360 (1775).

ADUSTUS, Sm. Brit. Mus. Cat. Hym. p. 43, ♀ (1859).  
Australia.

AFFINIS, Guér. Voy. de la Coq. Zool. II. p. 226, ♂; Klug,  
Berl. Abhandl. p. 18, 7 (1842).  
King George's Sound, W.A.

AGILIS, Sm. l.c. p. 20, ♂.  
Swan River, W.A.

ALBO-MACULATUS (*Agriomyia*), Sm. l.c. p. 27, ♂.  
Adelaide, S.A.

525 ALBO-PICTUS (*Agriomyia*), Sm. l.c. p. 26, ♂.  
Swan River, W.A.

ALTERRIMUS, Sm. New Sp. Hym. Brit. Mus. p. 164, ♂ (1879).  
Swan River, W.A.

ANILITATIS, Sm. Brit. Mus. Cat. Hym. p. 37, ♂ (1859).  
Australia.

ANNULATUS, Kirby, Trans. Linn. Soc. XII. p. 476, ♂; Guér.  
Voy. Coq. Zool. II. p. 228; Klug. Berl. Abhandl. p. 18,  
No. 6; *australis*, Boisd. Voy. de l'Astrol. Zool. p. 655,  
pl. xii. fig. 2; Guér. l.c. p. 228.  
Sydney, N.S.W.

ASSIMILIS, Sm. Brit. Mus. Cat. Hym. p. 20, ♂ (1859).  
Swan River, W.A.

530 ATTENUATUS, Sm. l.c. p. 42, ♀.  
Australia.

AUDAX, Sm. Trans. Ent. Soc. 1868, p. 234, ♂.  
Australia.

AUSTRALIS, Klug, Berl. Abhandl. p. 18, No. 6 (1842);  
*Myrmecodes australis*, Gray, Cuvier's Anim. Kingd. (Griffith), nec Boisd. XV. p. 516, pl. LXXI. fig. 3, ♀; *Thynnus Grayii*, Guér. Voy. Coq. Zool. II. p. 231; *Thynnus Brownii*, Westw. Arc. Ent. II. p. 113, pl. LXXVI. fig. 1, ♂.

King George's Sound, W.A.

BACCATUS (*Agriomyia*), Sm. New Sp. Hym. Brit. Mus. p. 236, ♂ (1879).

Champion Bay, W.A.

BASALIS (*Thynnoides*), Sm. Brit. Mus. Cat. Hym. p. 23, ♂ (1859).

Swan River, W.A.

535 BICOLOR (*Enteles*), Westw. Arc. Ent. II. p. 144, pl. LXXXII. fig. 4, ♀.

King George's Sound, W.A.

BIDENTATUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 32, ♂ (1859).

Swan River, W.A.

BRENCHLEYI, Sm. Brenchley's Cruise of Curaçoa, p. 456, pl. XLIII. fig. 3, ♂.

Champion Bay, W.A.

BREVICORNIS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 39, ♂ (1859).

Lower Plenty, Vic.

CALCARATUS (*Agriomyia*) Sm. l.c. p. 40, ♂.

Lower Plenty, Vic.

540 CÆLEBS, Sauss. Reise Novara, Hym. p. 122.

Sydney, N.S.W.

CAMPANULARIS, Sm. Trans. Ent. Soc. 1868, p. 232, ♂.

Champion Bay, W.A.

CARBONARIUS, Sm. Brit. Mus. Cat. Hym. p. 23, ♂ (1859).

Adelaide, S.A.

CERCEROIDES (*Agriomyia*), Sm. l.c. p. 34, ♂.

Australia.

CLYPEARIS, Sauss. Stettiner Ent. Zeit. p. 59, ♂, ♀ (1869).  
Sydney, N.S.W.

545 COGNATUS, Sm. Brit. Mus. Cat. Hym. p. 28, ♂ (1859).  
Australia.

COLLARIS (*Lophocheilus*), Guér. Mag. Zool. 1842, p. 13.  
Australia.

COMBUSTUS (*Agriomyia*), Sm. l.c. p. 32, ♂.  
Australia.

COMPRESSUS, Sm. l.c. p. 43, ♀.  
Australia.

CONFUSUS, Sm. l.c. p. 13, ♂.  
Australia.

550 CONNECTENS, Sm. l.c. p. 45, ♀.  
W. Australia.

CONSANGUINEUS (*Agriomyia*), Guér. Mag. Zool. 1842, p. 4.  
Australia.

CONSPICUUS, Sm. Trans. Ent. Soc. 1868, p. 231; Brenchley's  
Cruise of Curaçoa, p. 459, pl. XLIII. fig. 3, ♂.  
Champion Bay, W.A.; S. Australia.

CONSTRICTUS, Sm. Brit. Mus. Cat. Hym. p. 19, ♂ (1859).  
Swan River, W.A.

CRABRONIFORMIS (*Agriomyia*), Sm. l.c. p. 37, ♂.  
Australia.

555 CRASSIPES, Sm. l.c. p. 44, ♀.  
Australia.

CRYPTOIDES (*Agriomyia*), Sm. l.c. p. 33, ♂.  
Lower Plenty, Vic.

DECORATUS, Sm. New Sp. Hym. Brit. Mus. Cat. p. 159, ♂  
(1879).

Adelaide, S.A.

DECEPTOR, Sm. l.c. p. 169, ♂.  
Champion Bay, W.A.

DECIPIENS, Westw. Arc. Ent. II. pp. 105, 124, ♂.  
Tasmania.

560 DENTATUS, Fabr. Syst. Ent. p. 360, ♂; Ent. Syst. II. p. 244; Syst. Piez. p. 231; Latr. Gen. Crus. et Ins. IV. pl. III. fig. 1, and I. pl. XIII. figs. 2, 3, 4, ♂; Enc. Méth. p. 382, fig. 8; Guér. Voy. Coq. Zool. II. p. 222; Klug, Berl. Abhandl. 1842, p. 15, 1; Donovan, Ins. of N. Holland, pl. XLI. fig. 1; Röemer, Gen. Ins. t. 35, fig. 8; Lamarek, Anim. sans Vert. t. 4, fig. 109; Sm. Brit. Mus. Cat. Hym. p. 11, ♂ (1859).

Australia.

DEPRESSUS (*Agriomyia*), Westw. Arc. Ent. II. p. 107, pl. LXXIV. fig. 5, ♂, fig. 6, ♀.

King George's Sound, W.A.

DILATATUS, Sm. Brit. Mus. Cat. Hym. p. 43, ♀ (1859).

Australia.

DIMIDIATUS, Westw. Arc. Ent. II. p. 121, pl. LXXVI. fig. 5, ♂.

Australia.

DISPAR (*Eirone*), Westw. l.c. p. 144, pl. LXXXII. fig. 5, ♂, fig. 6, ♀.

Adelaide, S.A.

565 DISTINCTUS (*Lophocheilus*), Guér. Mag. Zool. 1842, p. 12, pl. CIII. figs. 14, 15.

Australia.

DIVERSUS (*Catocheilus*), Guér. Mag. Zool. 1842; *Catocheilus Klugii*, Guér. Mag. Zool. 1842, pp. 8, 9, pl. CII., figs.

1-14, ♂, ♀.

Swan River, W.A.

EMARGINATUS, Fabr. Syst. Ent. p. 354, 8, ♀; Ent. Syst. II. p. 228, 19; Syst. Piez. p. 231, 2; Guér. Voy. Coq. Zool. II. p. 229.

Australia.

EXCELLENS, Sm. New Sp. Hym. Brit. Mus. p. 163, ♂ (1879).

Swan River, W.A.

FALLAX (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 35, ♂ (1859).

Adelaide, S.A.

570 FASTUOSUS, Sm. New Sp. Hym. Brit. Mus. p. 170, ♂ (1879)  
Australia.

FENESTRATUS, Sm. Brit. Mus. Cat. Hym. p. 18, ♂ (1859).  
Swan River, W.A.

FERVIDUS, Erichs. Wieg. Arch. 1842, p. 263, No. 237, ♀ ;  
Westw. Arc. Ent. II. p. 146.  
Tasmania.

FERVENS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 31, ♂  
(1859).  
Australia.

FIMBRIATUS, Sm. l.c. p. 42, ♀.  
Australia.

575 FLAVILABRIS, Guér. Mag. Zool. 1842, p. 8, ♂ ; *Thynnus*  
*morio*, Macleay, MS. ?  
Australia.

FLAVIPENNIS, Sm. Brit. Mus. Cat. Hym. p. 21, ♂ (1859).  
Australia.

FLAVOPICTUS, Sm. l.c. p. 21, ♂.  
Australia.

FLAVOFASCIATUS, Sm. l.c. p. 45, ♀.  
Swan River, W.A.

FLAVESCENS (*Agriomyia*), Sm. l.c. Appen. p. 68, ♂.  
Adelaide, S.A.

580 FLAVOVARIEGATUS, Sm. New Sp. Hym. Brit. Mus. p. 170, ♂  
(1879).  
Australia.

FLAVIVENTRIS, Guér. Voy. Coq. Zool. II. p. 229, ♂ ; Mag.  
Zool. 1842, p. 101, fig. 21, ♂ ; Klug, Berl. Abhandl.  
1842, p. 19, No. 10.  
Australia.

FRAUENFELDIANUS (*Agriomyia*), Sauss. Reise Novara, Hym.  
p. 120, ♂.  
Sydney, N.S.W.

4-CARINATUS, Sauss. l.c. p. 124, ♀ ; *Thynnus trisulcatus*, Sm. ?  
Brit. Mus. Cat. Hym. p. 45 (1859).

Sydney, Australia.

FULVOPILOSUS, Sm. New Sp. Hym. Brit. Mus. p. 160 (1879).  
Adelaide, S.A.

585 FULVIPES (*Thynnoides*), Guér. Voy. Coq. Zool. II. p. 233, ♂;  
Atlas Ins. pl. VIII. fig. 9 ; Klug, Berl. Abhandl. p. 22,  
No. 16 (1842).

Port Jackson, N.S.W.

FUMIPENNIS (*Thynnoides*), Westw. Arc. Ent. II. p. 108,  
pl. LXXV. fig. 1, ♂, fig. 2, ♀.

Melbourne, Vic.

GRACILIS (*Thynnoides*), Westw. l.c. p. 139, pl. LXXXIII.  
fig. 2, ♂, fig. 3, ♀.

Adelaide, S.A.

GRAVIDUS, Westw. l.c. p. 141 ; *Thynnus klugii* ? Westw. l.c.  
p. 140, ♀.

Australia.

GUERINII, Westw. l.c. p. 137.

Australia.

590 HUMILIS, Erichs. Wieg. Arch. 1842, p. 264, No. 238, ♀ ;  
Westw. Arc. Ent. II. p. 146.

Tasmania.

HYALINATUS, Westw. l.c. p. 106, pl. LXXIV. fig. 3, ♂, fig. 4, ♀.  
Tasmania.

ICHNEUMONIFORMIS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym.  
p. 39, ♂ (1859).

Lower Plenty, Vic.

IMPATIENS, Sm. New Sp. Hym. Brit. Mus. p. 168 (1879).  
Champion Bay, W.A.

IMPETUOSUS, Sm. Trans. Ent. Soc. 1868, p. 233, ♂.  
Hunter River, ? N.S.W. ; S. Australia.

595 INCENSUS (*Agriomyia*), Sm. New Sp. Hym. Brit. Mus. p. 234,  
♂ (1879).

Champion Bay, W.A.

INDISTINCTUS, Sm. l.c. p. 169, ♂.

W. Australia.

INSIDIATOR, Sm. l.c. p. 163, ♂.

Swan River, W.A.

IN SIGNIS, Sm. Brit. Mus. Cat. Hym. p. 15, ♂ (1859).

Perth, W.A.

IN CONSTANS (*Agriomyia*), Sm. l.c. p. 26, ♂.

Australia.

600 INTRICATUS, Sm. l.c. p. 30, ♂.

Tasmania.

IRIDIPENNIS (*Agriomyia*), Sm. l.c. p. 38, ♂.

Lower Plenty, Vic.

IRRITANS (*Agriomyia*), Sm. New Sp. Hym. Brit. Mus. p. 234,

♂ (1879).

Champion Bay, W.A.

IRREGULARIS, Sm. l.c. p. 162, ♂.

Swan River, W.A.

JUCUNDUS, Sm. Brit. Mus. Cat. Hym. p. 25, ♂ (1859).

Australia.

605 LABIATUS, Klug, Berl. Abhandl. 1842, p. 23, 17, ♂.

Australia.

KLUGII, Westw. Arc. Ent. II. p. 140, pl. LXXXII. fig. 1, ♂.

Swan River, W.A.

LÆVICEPS, Sm. Brit. Mus. Cat. Hym. p. 44, ♀ (1859).

Australia.

LÆVIFRONS, Sm. l.c. p. 45, ♀.

Australia.

LEACHIELLUS, Westw. Arc. Ent. II. p. 135, pl. LXXXIII. fig. 4,

♀; *Thynnus interruptus*, Westw. l.c. p. 115, pl. LXXVII.

fig. 1, ♂.

Sydney, N.S.W.

610 LONGICEPS, Sm. Brit. Mus. Cat. Hym. p. 46, ♀ (1859).

Tasmania.

LUCIDUS (*Agriomyia*), Sm. l.c. p. 36, ♂.

Tasmania.

LUCTUOSUS (*Agriomyia*), Sm. l.c. p. 26, ♂.

Australia.

MACULATUS (*Agriomyia*), Guér. Voy. Coq. Zool. II. p. 218;

Klug, Berl. Abhandl. 1842, p. 20, No. 12; Sauss. Reise  
Novara, Hym. p. 116.

Sydney, &c., Tasmania.

MACULOSUS, Sm. l.c. p. 16, ♂.

Australia.

615 MARGINALIS (*Agriomyia*), Westw. Arc. Ent. II. p. 120,

pl. LXXVI. fig. 3. ♂.

King George's Sound, W.A.

MARGINILABRIS (*Agriomyia*), Guér. Mag. Zool. 1842, p. 3,

pl. c. ♂.

Australia.

MAURUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 37, ♂

(1859).

Australia.

MEDIUS, Sm. New Sp. Hym. Brit. Mus. p. 170 (1879).

Australia.

MELLEUS (*Agriomyia*), Westw. Arc. Ent. II. p. 118, pl. LXXVI.

fig. 4, ♂; Sm. Brit. Mus. Cat. Hym. Append. p. 67, ♀.

King George's Sound, W.A.; Adelaide, S.A.

620 MINUTUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 35, ♂.

(1859).

Australia.

MŒSTUS (*Agriomyia*), Sm. l.c. p. 36, ♂.

Melbourne, Vic.

MODESTUS, Sm. l.c. p. 19, ♂.

Swan River, W.A.

MOLESTUS, Sm. New Sp. Hym. Brit. Mus. p. 166, ♂ (1879).

S. Australia.

MOLITOR, Sm. Brit. Mus. Cat. Hym. p. 43, ♀ (1859) (perhaps ♀ of *klugii*).

S. Australia.

625 MONILICORNIS (*Agriomyia*), Sm. l.c. p. 39, ♂.

Lower Plenty, Vic.

MOROSUS, Sm. New Sp. Hym. Brit. Mus. p. 168, ♂ (1879).

Champion Bay, W.A.

MULTIPICTUS, Sm. l.c. p. 160, ♂.

Adelaide, S.A.

NANUS, Sm. l.c. p. 171, ♂.

Tasmania.

NIGROPICTUS, Sm. l.c. p. 165, ♂.

Swan River, W.A.

630 NIGRIPES (*Thynnoides*), Guér. Mag. Zool. 1842, p. 10.

Swan River, W.A.

NIGER (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 30, ♂ (1859).

Tasmania.

NITIDUS (*Agriomyia*), Sm. l.c. p. 30, ♂.

Australia.

NOVARÆ (*Thynnoides*), Sauss. Reise Novara, Hym. p. 119, ♂.

Sydney, N.S.W.

NUBILIPENNIS, Sm. New Sp. Hym. Brit. Mus. p. 167, ♂ (1879).

Queensland.

635 OBLONGUS, Sm. Trans. Ent. Soc. 1868, p. 232, ♂.

Sydney, N.S.W.

OBSCURIPENNIS, Guér. Voy. Coq. Zool. II. p. 227, ♂; Klug,

Berl. Abhandl. 1842, p. 18, 8.

Australia.

OBSCURUS (*Thynnoides*), Klug, Berl. Abhandl. p. 22, 14,

fig. 4, ♂ (1842); Westw. Arc. Ent. II. p. 139, pl. LXXXII.

fig. 2, ♂; Sauss. Reise Novara, Hym. p. 122

Sydney, N.S.W.

OCHROCEPHALUS, Sm. Trans. Ent. Soc. 1868, p. 231, ♂.  
Champion Bay, W.A.

ODYNEROIDES, Westw. Arc. Ent. II. p. 109, pl. LXXV. fig. 3, ♂,  
fig. 4, ♀.  
Australia.

640 OLIVIERI, Erichs. Wieg. Arch. 1842, p. 262, No. 235, ♂;  
Westw. Arc. Ent. II. p. 146.  
Tasmania.

OPPOSITUS, Sm. New Sp. Hym. Brit. Mus. p. 162 (1879).  
Swan River, W.A.

OPTIMUS, Sm. Brit. Mus. Cat. Hym. p. 29, ♂ (1859).  
Swan River, W.A.

PAVIDUS, Sm. New Sp. Hym. Brit. Mus. p. 166, ♂ (1879).  
S. Australia.

PEDESTRIS (*Tiphia*), Fabr. Syst. Ent. p. 354, 8, ♀; Ent. Syst.  
II. p. 228, 19; Syst. Piez. p. 235, 23; Guér. Voy. Coq.  
Zool. II. p. 16, 3; Klug, Berl. Abhandl. 1842, p. 16, 3;  
*Mutilla myrmecodes*, Lamarck, Hist. Nat. (2nd ed.) IV.  
p. 316, 7.

Australia.

645 PENETRANS, Sm. New Sp. Hym. Brit. Mus. p. 158, ♂ (1879).  
Hunter River, N.S.W.

PERELEGANS, Sm. I.c. p. 167, ♂.  
Queensland.

PERPLEXUS, Sm. I.c. p. 164, ♂.  
Swan River, W.A.

PETIOLATUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 36, ♂  
(1859).

Hunter River, N.S.W.

PETULANS, Sm. New Sp. Hym. Brit. Mus. p. 164, ♂ (1879).  
Swan River, W.A.

650 PICTIPES, Westw. Arc. Ent. II. p. 114, pl. LXXVII. fig. 2, ♂;  
*Thynnus flavilabris*, Guér. Mag. Zool. 1842, p. 8?.  
King George's Sound, W.A.

PLANIFRONS, Sm. Brit. Mus. Cat. Hym. p. 46, ♀ (1859).  
Australia.

PLEBEJUS, Sauss. Reise Novara, Hym. p. 123, ♀.  
Australia.

PROPINQUUS, Sm. New Sp. Hym. Brit. Mus. p. 160, ♂ (1879).  
Adelaide, S.A.

PROTERVUS, Sm. l.c. p. 159, ♂.  
Adelaide, S.A.

655 PUBESCENS, Christophori, Mus. Spinola V.; Brullé Hym. III.  
p. 569.

PUGIONATUS (*Thynnoides*), Guér. Voy. Coq. Zool. II. p. 234,  
♂; Klug, Berl. Abhandl. 1842, p. 23, 19; Sauss. Reise  
Novara, Hym. p. 118.

Sydney, N.S.W.

PULCHELLUS (*Agriomyia*), Klug, l.c. p. 20, 13, ♂.  
Australia.

PULCHIRALIS, Sm. Brit. Mus. Cat. Hym. Appen. p. 68, ♂ (1859).  
Adelaide, S.A.

PUNCTATUS, Sm. Brit. Mus. Cat. Hym. p. 44, ♀ (1859).  
Australia.

660 PURPUREIPENNIS, Westw. Arc. Ent. II. p. 143, pl. LXXXIII.  
fig. 1, ♂.  
Australia.

QUADRATUS, Sm. Brit. Mus. Cat. Hym. p. 42, ♀ (1859).  
Australia.

RIXOSUS, Sm. New Sp. Hym. Brit. Mus. p. 168 (1879).  
Champion Bay, W.A.

ROTUNDICEPS, Sm. Brit. Mus. Cat. Hym. p. 46, ♀ (1859).  
Australia.

RUBELLUS, Sm. l.c. p. 25, ♂.  
Australia.

665 RUBRIPES (*Thynnoides*), Guér. Voy. Coq. Zool. II. p. 233, ♂ ;  
Atlas Ins. pl. viii. fig. 9 ; Klug, Berl. Abhandl. p. 22,  
16 (1842).

Sydney, N.S.W.

RUFICORNIS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 34, ♂  
(1859).

Swan River, W.A.

RUFIVENTRIS, Guér. Voy. Coq. Zool. II. p. 227, ♂ ; Klug,  
Berl. Abhandl. 1842, p. 19, 9 ; Sm. l.c. p. 13, ♀.

Sydney, N.S.W.

RUGOPICTUS, Sm. New Sp. Hym. Brit. Mus, p. 159, ♂ (1879).  
Adelaide, S.A.

SEDUCTOR, Sm. Trans. Ent. Soc. 1868, p. 234, ♂.  
Champion Bay, W.A.

670 SEDULUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 35, ♂  
(1859).

Australia.

SENEX, Sm. l.c. p. 19, ♂.  
W. Australia.

SENLIS (*Agriomyia*), Erichs. Wieg. Arch. p. 263, No. 236,  
♂ (1842) ; Westw. Arc. Ent. II. p. 146.

Tasmania.

SERRIPES, Sm. Brit. Mus. Cat. Hym. p. 44, ♀ (1859).  
Australia.

SEXYMACULATUS (*Agriomyia*), Sm. l.c. p. 32, ♂.  
Swan River, W.A.

675 SHUCKARDI, Guér. Mag. Zool. 1842, pl. c. fig. 13, ♂ ; Westw.  
Arc. Ent. II. p. 136, pl. LXXXIII. fig. 5, ♀.

Sydney, N.S.W.

SIGNATUS, Sm. Brit. Mus. Cat. Hym. p. 44, ♀ (1859) ; Sauss.  
Reise Novara, Hym. p. 121.

Sydney, N.S.W.

SIMPLEX, Sm. New Sp. Hym. Brit. Mus. p. 167 (1879).

Champion Bay, W.A.

SIMILLIMUS, Sm. Brit. Mus. Cat. Hym. p. 15, ♂ (1859).

Sydney, N.S.W.

STRANGULATUS, Sm. New Sp. Hym. Brit. Mus. p. 166, ♂ (1879).

S. Australia.

680 SULCATUS, Sm. Brit. Mus. Cat. Hym. p. 42, ♀ (1859).

Australia.

SULCIFRONS, Sm. I.c. p. 43, ♀.

Australia.

SUSPICIOSUS, Sm. New Sp. Hym. Brit. Mus. p. 161, ♂ (1879).

Swan River, W.A.

TASMANIENSIS (*Agriomyia*), Sauss. Reise Novara, Hym. p. 119, ♂.

Tasmania.

TENUATUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 31, ♂ (1859).

Swan River, W.A.

685 TRIFIDUS (*Agriomyia*), Westw. Arc. Ent. II. p. 119, pl. LXXVII.

fig. 4, ♂.

King George's Sound, W.A.

TRISTIS (*Agriomyia*), Sm. I.c. p. 34, ♂.

Australia.

TRISULCATUS, Sm. I.c. p. 45, ♀.

Australia.

TRIVIALIS (*Agriomyia*), Sm. I.c. p. 38, ♂.

Lower Plenty, Vic.

TROCHANTERINUS, Westw. I.c. p. 116, pl. LXXVII. fig. 3, ♂.

King George's Sound, W.A.

690 TRUNCATUS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 38, ♂ (1859).

Lower Plenty, Vic.

TRYPHONOIDES (*Agriomyia*), Sm. l.c. p. 34, ♂; Appen. p. 68, ♀.  
Adelaide, S.A.

TUBERCULIVENTRIS, Westw. Arc. Ent. II. p. 118, pl. LXXVI.  
fig. 2, ♂.

King George's Sound, W.A.

TUBERCULATUS (*Eirone*), Sm. Brit. Mus. Cat. Hym. p. 41,  
♂, ♀ (1859).

Lower Plenty, Vic.

TUBERCULIFRONS, Sm. New Sp. Hym. Brit. Mus. p. 161, ♂  
(1879).

Swan River, W.A.

695 UMBRIEPENNIS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 31, ♂  
(1859).

Australia.

UNIFASCIATUS, Sm. Brenchley's Cruise of Curaçoa, p. 459,  
pl. XLIII. fig. 3.

Queensland.

VARIABILIS, Kirby, Trans. Linn. Soc. XII. p. 476, ♂, ♀; Klug,  
Berl. Abhandl. p. 16, No. 4, fig. 1, ♂, fig. 2, ♀ (1842);  
Guér. Voy. Coq. Zool. II. p. 223; Mag. Zool. 1842, pl. ci.  
figs. 1-20; *Thynnus apterus*, Guér. Voy. Coq. Zool. II.  
p. 230, ♀; *Thynnus flavoguttatus*, Guér. l.c. p. 230, ♀;  
*Thynnus Olivierii*, Erichs. Wieg. Arch. p. 262, No. 235,  
♂, ♀ (1842); Westw. Arc. Ent. II. p. 146; *Myzine aptera*,  
Oliv. Enc. Méth. VIII. p. 137, fig. 1, ♂; *Myrmecodes flavo-guttatus*, Latr. Nouv. Dict. Hist. Nat.  
(2nd ed.) XXII. p. 143, ♀.

Australia and Tasmania.

VARIEGATUS (*Agriomyia*), Klug, Berl. Abhandl. p. 20, No. 12  
(1842).

Australia.

VARIPES, Sm. Brit. Mus. Cat. Hym. Appen. p. 67, ♂ (1859).  
Adelaide, S.A.

- 700 VASTATOR, Sm. New Sp. Hym. Brit. Mus. p. 158, ♂ (1879).  
Adelaide, S.A.
- VENTRALIS, Sm. Trans. Ent. Soc. (3) II. p. 389 (1864).  
Swan River, W.A.
- VESTITUS, Sm. Brit. Mus. Cat. Hym. p. 15, ♂ (1859).  
Swan River, W.A.
- VIDUUS, Sauss. Reise Novara, Hym. p. 123, fig. LXX.  
Sydney, N.S.W.
- VIGILANS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 28, ♂  
(1859).  
Australia.
- 705 VILLOSUS (*Lophocheilus*), Guér. Mag. Zool. 1842, p. 12, pl. cIII.  
figs. 7-13.  
Australia.
- VITRIPENNIS (*Eironae*), Sm. Brit. Mus. Cat. Hym. p. 41, ♂, ♀  
(1859).  
Lower Plenty, Vic.
- VIVIDUS, Sm. New Sp. Hym. Brit. Mus. p. 161, ♂ (1879).  
Swan River and Champion Bay, W.A.
- VOLATILIS (*Agriomyia*), Sm. Brit. Mus. Cat. Hym. p. 33, ♂  
(1859).  
Australia.
- WALLISHI, Sm. l.c. p. 14, ♂.  
Sydney, N.S.W.
- 710 WESTWOODII (*Agriomyia*), Guér. Mag. Zool. 1842, p. 4; St.  
Farg. Nat. Hist. Ins. Hym. III. p. 568 (1845).  
Tasmania.
- ZELEBORI (*Agriomyia*), Sauss. Reise Novara, Hym. p. 117, ♂.  
Sydney, N.S.W.
- ZONATUS, Guér. Voy. Coq. Zool. II. p. 222; Klug, Berl.  
Abhandl. p. 18, 7 (1842).  
Australia.

## 119. ÆLURUS.

*Elurus*, Klug, Berl. Abhandl. (1840-42).

ABDOMINALIS (*Agriomyia*), Guér. Mag. Zool. 1842, p. 5 ;  
Westw. Arc. Ent. II. p. 122, pl. LXXVII. fig. 5, ♂ ;  
*Thynnus servidus*, Erichs. Wieg. Arch. p. 263, No. 237,  
♂ (1842) ; Westw. Arc. Ent. II. p. 146.

Tasmania.

AGILIS, Sm. Trans. Ent. Soc. (3) II. p. 390 (1864).

Swan River, W.A.

715 ANTHRACINUS, Sm. New Sp. Hym. Brit. Mus. p. 174, ♂ (1879).  
Queensland.

AURIFRONS, Sm. Brit. Mus. Cat. Hym. p. 54, ♂ (1859).  
W. Australia.

BARBATUS, Sm. l.c. p. 57, ♂.

Lower Plenty, Vic.

BASALIS, Sm. l.c. p. 55, pl. III. fig. 6, ♂.  
Australia.

COMBUSTUS, Sm. l.c. p. 55, ♂.  
Moreton Bay, Q.

720 DENTATUS, Sm. l.c. p. 57, ♂, ♀.  
Lower Plenty, Vic.

FERVENTS, Sm. l.c. p. 58, ♂.  
Lower Plenty, Vic.

FULVIFRONS, Sm. l.c. p. 56, ♂.  
Lower Plenty, Vic.

INCANUS, Sm. l.c. p. 52, ♂ ; Appen. p. 69, ♀.  
Pt. Stephens, N.S.W. ; Adelaide, S.A.

MÆRENS, Westw. Arc. Ent. II. p. 124, ♂.  
Melbourne, Vic.

725 PILOSULUS, Sm. Brit. Mus. Cat. Hym. p. 56, ♂ (1859).  
Lower Plenty, Vic.

RUBELLUS, Sm. l.c. p. 56, ♂.  
Lower Plenty, Vic.

**SENEX**, Sm. l.c. p. 54, ♂.

Australia.

**VOLATILIS**, Sm. Trans. Ent. Soc. 1868, p. 237, ♂.

Adelaide, S.A.

**VULPINUS**, Sm. Brit. Mus. Cat. Hym. p. 54, ♂ (1859).

Hunter River, N.S.W.

### 120. ARIPHRON.

*Ariphron*, Erichs. Wieg. Arch. 1842.

730 **BICOLOR**, Erichs. Wieg. Arch. 1842, p. 266, No. 239, t. 5,

figs. 8, 8a, ♀ ; Westw. Arc. Ent. II. p. 146 ; Sm. Brit.

Mus. Cat. Hym. p. 58, pl. III. fig. 13, ♀ (1859).

Tasmania.

### 121. ANTHOBOSCA.

*Anthobosca*, Guér. Voy. Coq. (1830).

**ETHIOPS**, Sm. New Sp. Hym. Brit. Mus. p. 174, ♂ (1879).

Champion Bay, W.A.

**AUSTRALASIÆ**, Guér. Voy. Coq. Zool. II. p. 237, Atlas Ins.

pl. VIII. fig. 10 ; Mag. Zool. 1842, p. 13, pl. CIV. ;

*Thynnus australasiae*, Klug. Berl. Abhandl. p. 24,  
No. 20, ♂ (1842).

Sydney, N.S.W.

**CРАBRONIFORMIS**, Sm. Brit. Mus. Cat. Hym. p. 59, ♂ (1859).

Australia.

**NIGRA**, Sm. l.c. p. 59, ♂.

Melbourne, Vic.

735 **VARIPES**, Sm. l.c. p. 59, ♂.

Lower Plenty, Vic.

### 122. ZELEBORIA.

*Zeleboria*, Sauss. Reise Novara, Hym. p. 131 (1865).

**CARINATA** (*Thynnus*), Sm. Brit. Mus. Cat. Hym. p. 29, ♂  
(1859) ; Sauss. Reise Novara, Hym. p. 131, ♂, ♀.

N.W. Australia.

**FUSIFORMIS**, Sauss. l.c. p. 132, ♂.

Australia.

IMITATRIX, Sauss. l.c. p. 132, ♂.

Australia.

XANTHORRHŒI (MS. Macleay), Sm. Brit. Mus. Cat. Hym.  
p. 28, ♂ (1859); Sauss. Stettin. Ent. Zeit. p. 61 (1869).  
Sydney, N.S.W.; Moreton Bay, Q.

123. TACHYNOMYIA.

*Tachynomyia*, Guér. Mag. Zool. 1842.

740 CÆLEBS, Sauss. Reise Novara, Hym. p. 125, ♂.

Australia.

NITENS, Sauss. l.c. p. 125, pl. iv. fig. 65, ♂.

Australia.

124. RHAGIGASTER.

*Rhagigaster*, Guér. Voy. Coq. (1830).

ACULEATUS, Sauss. Reise Novara, Hym. p. 113, ♂.

Sydney, N.S.W.

ÆTHIOPS, Sm. New Sp. Hym. Brit. Mus. p. 175, ♂ (1879).

Adelaide, S.A.

ANALIS, Westw. Arc. Ent. II. p. 106, 8, ♀.

King George's Sound, W.A.

745 APTERUS (*Bethylus*), Fabr. Syst. Piez. p. 238, 7, ♀; Westw.

Arc. Ent. II. p. 106, 9.

N. S. Wales.

APICALIS, Sm. Brit. Mus. Cat. Hym. p. 63, ♂ (1859).

Australia.

BIDENS, Sauss. Reise Novara, Hym. p. 112, ♂.

Sydney, N.S.W.

BINOTATUS, Westw. Arc. Ent. II. p. 105, 7, ♀; Sauss. l.c.

p. 111. ♂.

Tasmania; Sydney, N.S.W.

CASTANEUS, Sm. Brit. Mus. Cat. Hym. p. 63, ♀ (1859).

Australia.

750 COMPARATUS, Sm. l.c. Appen. p. 69, ♂.

Adelaide, S.A.

DIMIDIATUS, Sm. l.c. p. 62, ♂.

Sydney, N.S.W.

FLAVIFRONS, Sm Trans. Ent. Soc. (3) II. p. 390 (1864).

Swan River, W.A.

FUSCIPENNIS, Sm. New Sp. Hym. Brit. Mus. p. 175, ♂ (1879).

Queensland.

HÆMORRHOIDALIS, Guér. Mag. Zool. 1842, p. 2, ♂.

Swan River, W.A.

755 INTEGER (*Thynnus*), Fabr. Syst. Ent. p. 360, 3, ♂; Ent. Syst.

II. p. 245, 4; Syst. Piez. p. 231, 4; Donov. Epit. Ins.

New Holl. Pl. Hym. Dipt. fig. 4; Kirby, Mon. Ap.

Angl. I. p. 223; Guér. Voy. Coq. Zool. II. p. 229;

*Rhugigaster integer*, Westw. Arc. Ent. II. p. 105, 6.

Australia.

LÆVIGATUS, Sm. New Sp. Hym. Brit. Mus. p. 176, ♂ (1879).

Champion Bay, W.A.

MANDIBULARIS, Westw. Arc. Ent. II. p. 105, 3, ♂.

Melbourne, Vic.

MORIO, Westw. l.c. p. 105, 4, ♂; Sauss. Reise Novara, Hym.

p. 114, ♂.

Sydney, N.S.W.

NITIDUS, Sm. Brit. Mus. Cat. Hym. p. 63, ♀ (1859).

Australia.

760 NOVARÆ, Sauss. Reise Novara, Hym. p. 112, ♂.

New Zealand and Australia?

OBTUSUS, Sm. Brit. Mus. Cat. Hym. p. 62, ♂ (1859).

Adelaide, S.A.

PUGIONATUS, Sauss. Reise Novara, Hym. p. 113, ♂.

Sydney, N.S.W.

REFLEXUS, Sm. Brit. Mus. Cat. Hym. p. 62, ♂ (1859).

Swan River, W.A.

RUGOSUS, Sm. New Sp. Hym. Brit. Mus. p. 176, ♂, ♀ (1879).

Adelaide, S.A.

765 *SIMILLIMUS*, Sm. Trans. Ent. Soc. (3), II. p. 390 (1864).

Swan River, W.A.

*TRISTIS*, Sm. Brit. Mus. Cat. Hym. p. 63, ♂ (1859).

W. Australia.

*UNICOLOR*, Guér. Voy. Coq. Zool. II. p. 214, ♂; *Diamma ephippiger*, Guér. Voy. de l'Astrol. p. 235, ♀; Mag. Zool. 1842, pl. ciii. figs. 1-6; *Thynnus unicolor*, Klug, Berl. Abhandl. p. 23, 18 (1842); *Rhagigaster ephippiger*, Westw. Arc. Ent. II. p. 105.

Sydney, N.S.W.; Tasmania.

#### 125. TACHYPTERUS.

*Tachypterus*, Guér. Voy. Coq. Zool. (1830).

*CRASSICORNIS*, Sm. Brit. Mus. Cat. Hym. p. 64, pl. iii. fig. 10, ♂ (1859).

Australia.

*FASCIATUS*, Guér. Voy. Coq. Zool. II. p. 217; Westw. Arc. Ent. II. p. 102.

Kangaroo Island, S.A.

#### 126. ONCORHINUS.

*Oncorhinus*, Shuckard, Grey's Journ. 1841.

770 *XANTHOPILOS*, Shuck. Grey's Journ. of two Exped. Append. II. p. 471, ♂ (1841); Sm. Brit. Mus. Cat. Hym. p. 65, pl. iii. fig. 15, ♂ (1859).

King George's Sound, W.A.

#### 127. DIAMMA.

*Diamma*, Westw. Proc. Zool. Soc. (1835).

*BICOLOR*, Westw. Proc. Zool. Soc. 1835, pt. 3, p. 53, ♀; Arc. Ent. II. p. 21, pl. liv. fig. 6, ♀; Guér. Voy. Coq. Zool. II. p. 235; *Psammatha chalybea*, Shuck. Trans. Ent. Soc. II. p. 69, pl. viii. fig. 1, ♂; Westw. Arc. Ent. p. 20, pl. liv. fig. 5, ♂; *Tachypterus chalybeus*, Westw. Arc. Ent. II. p. 102, ♂.

Sydney and Melbourne, Australia; Tasmania.